

SPRINGDALE™

WE'RE MAKING IT HAPPEN

CITY OF SPRINGDALE, ARKANSAS

**STANDARD DETAILS FOR
STREET AND DRAINAGE
CONSTRUCTION**

OCTOBER 2016

**ENGINEERING DEPARTMENT
CITY OF SPRINGDALE, ARKANSAS**

TABLE OF CONTENTS
OCTOBER 2016 UPDATE

SECTION A – TYPICAL STREET SECTIONS DETAILS

<u>Page</u>	
A1	Typical Section - Local Street - 30'
A2	Typical Section - Minor Collector - 36'
A3	Typical Section - Major Collector - 48'
A4	Typical Section - Arterial - 60'
A5	Full Depth Asphalt Section
A6	Composite Pavement Section
A7	Concrete Pavement Section
A8	Minimum Pavement Section by Street & Soil Classification
A9	H.M.A.C. Transverse Construction Joint
A10	Concrete Pavement Joint Layout Plan
A11	Joints for Concrete Pavement
A12	Typical Curb & Gutter Details

SECTION B – TYPICAL STREET, DRIVEWAY & SIDEWALK DETAILS

B1	Sidewalk Detail
B2	Wheelchair Ramps / New Construction / Alterations
B3	Commercial Driveway Detail
B4	Residential Driveway Detail
B5	Street Cut Repair

SECTION C – PAVEMENT MARKING DETAILS

C1	MUTCD Reference
----	-----------------

SECTION D – DROP INLET DETAILS

D1	Plan – Circular Drop Inlet
D2	Section – Circular Drop Inlet
D3	Detailed Sections – Circular Drop Inlet
D4	Plan – Rectangular Drop Inlet
D5	Section – Rectangular Drop Inlet
D6	Detailed Sections – Rectangular Drop Inlet
D7	Typical Junction Box
D8	Storm Sewer Bedding & Backfill

SECTION E - DITCHES

E1	Concrete Ditch Paving Details
E2	Grass Lined Ditch Detail
E3	Riprap Lined Ditch Detail

TABLE OF CONTENTS – continued

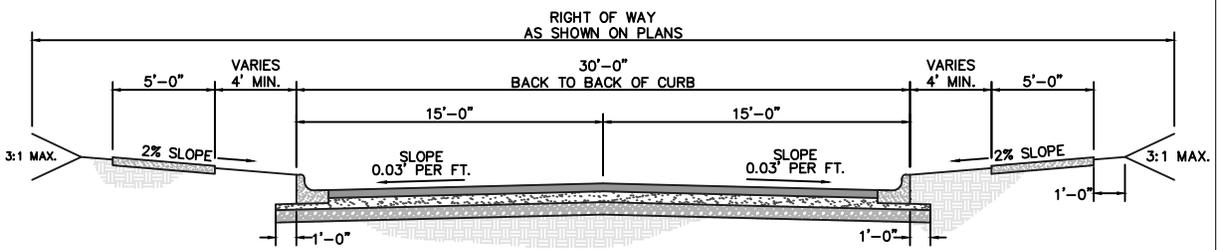
SECTION F - FENCES

Page

F1	Commercial Chain Link Fence
F2	Residential Chain Link Fence
F3	Barbed Wire Fence Detail
F4	Privacy Fence Detail

SECTION G – MISCELLANEOUS DETAILS

G1	Typical Mailbox Relocation Detail
G2	Typical Handrail Detail
G3	Guardrail Terminal
G4	Guard Post Assembly / Guard Base Plate Detail
G5	Retaining Wall Design
G6	Typical Headwall Detail



**TYPICAL SECTION
LOCAL STREET - 30'**
NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

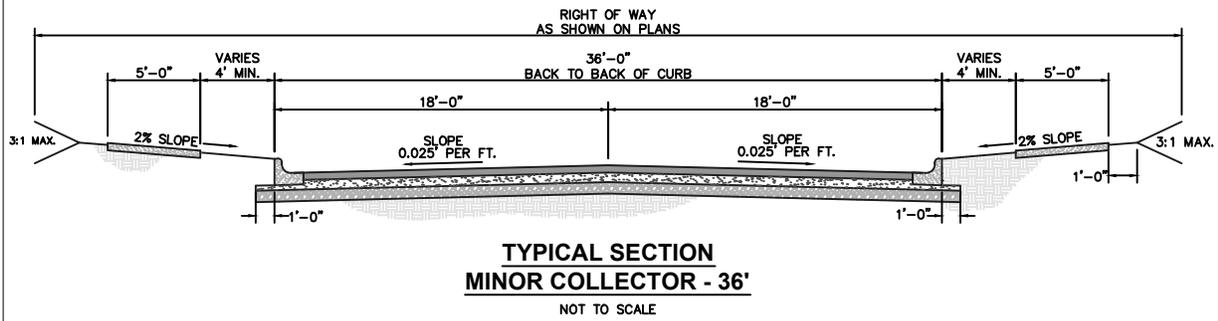
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-A-1



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

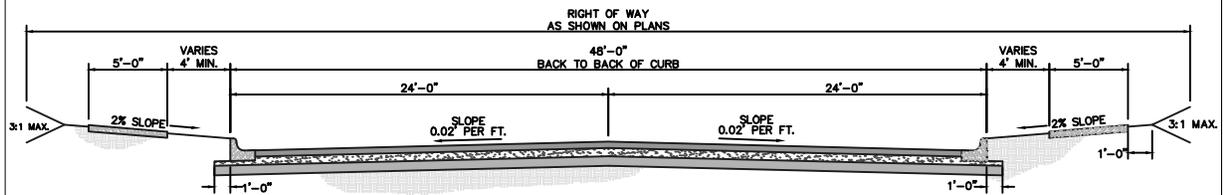
SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-A-2



SPRINGDALE
WE'RE MAKING IT HAPPEN



**TYPICAL SECTION
MAJOR COLLECTOR - 48'**
NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

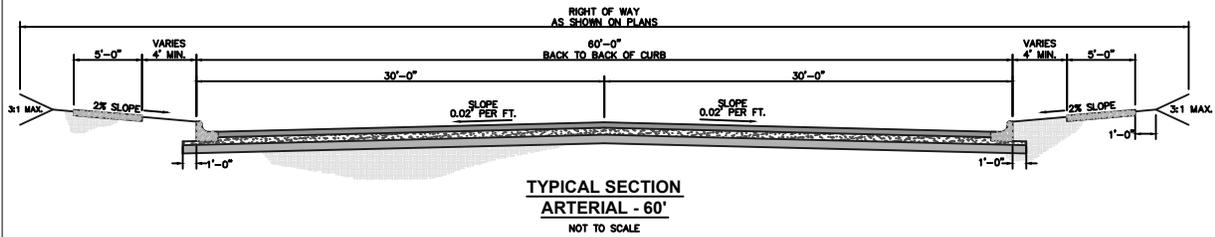
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-A-3



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

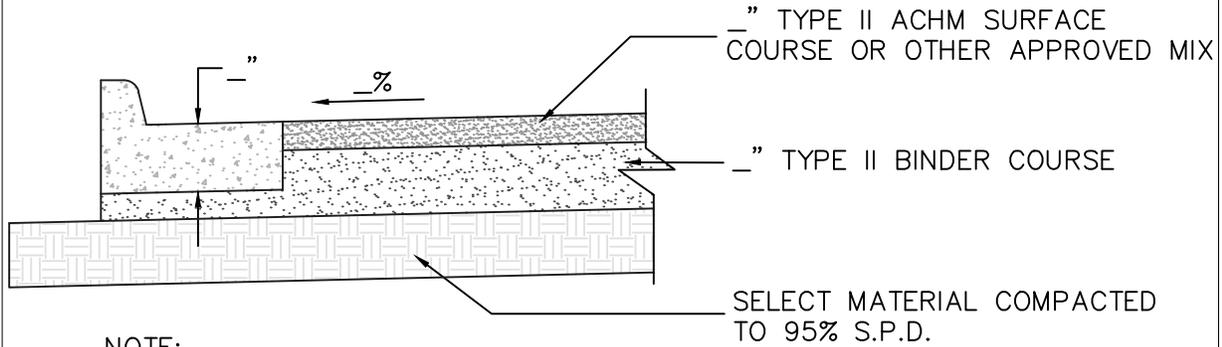
SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-A-4



SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTE:
AS AN ALTERNATE THE CURB MAY BE
PLACED DIRECTLY ON THE SUBGRADE

FULL DEPTH ASPHALT SECTION

NOT TO SCALE

Note To Engineers:
Paving depth to be per ordinance or formal design.

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

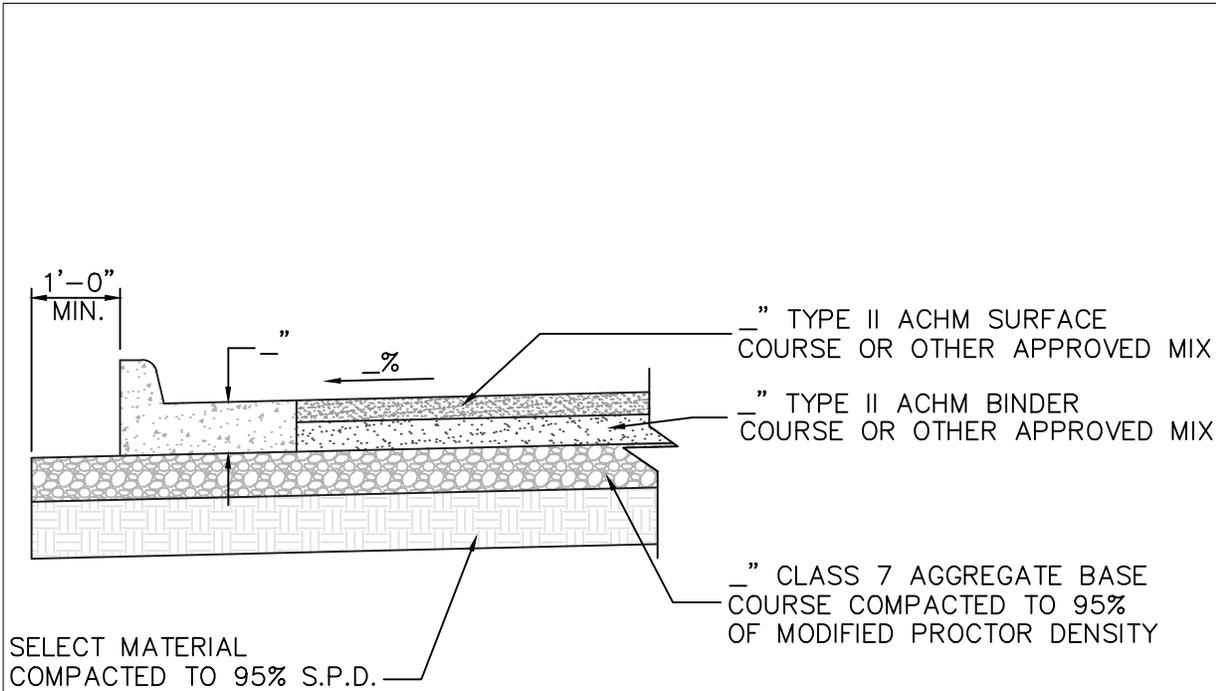
SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-A-5



SPRINGDALE
WE'RE MAKING IT HAPPEN



COMPOSITE PAVEMENT SECTION

NOT TO SCALE

Note to Engineers: Paving depths and other dimensions to be per ordinance or formal design.

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

**SECTION A
TYPICAL STREET
SECTIONS & DETAILS**

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

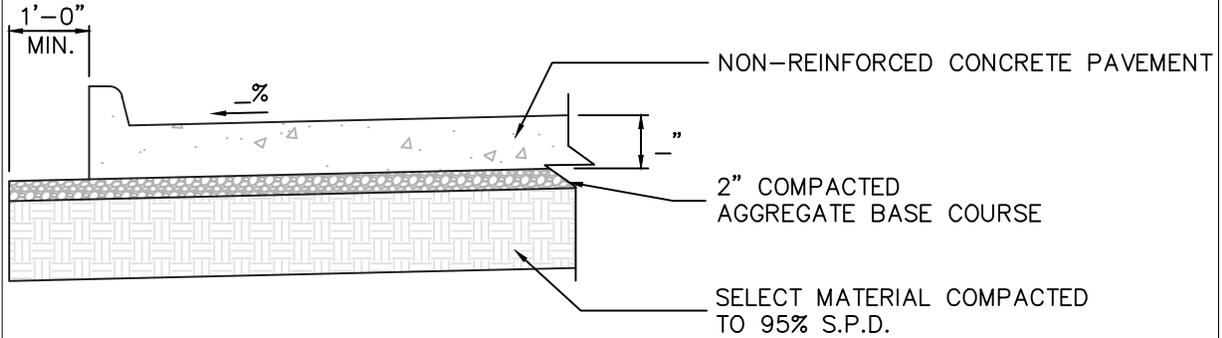
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-A-6



SPRINGDALE
WE'RE MAKING IT HAPPEN



CONCRETE PAVEMENT SECTION
NOT TO SCALE

Note to Engineers: Paving depths and other dimensions to be per ordinance or formal design.

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

**SECTION A
TYPICAL STREET
SECTIONS & DETAILS**

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-A-7



SPRINGDALE
WE'RE MAKING IT HAPPEN

CLASS OF STREET	GROUP INDEX	SOIL DESCRIPTION	SN REQUIRED	COMPOSITE FLEXIBLE (SN)	COMPOSITE FLEXIBLE (SN)	FULL DEPTH ASPHALT (SN)	CONCRETE PAVEMENT
I/II	A-1	GRAVEL/SAND	1.70	2" SURF.	2" SURF.	2" SURF.	5" CONCRETE
	A-2	NO CLAY		6" BASE (1.72)	4" CT. BASE (1.88)	4" B. BASE (1.88)	2" DRAINAGE BLANKET
	A-3						
I/II	A-4	SILT, SILTY SAND, SANDY SILTY CLAY	1.85	2" SURF.	2" SURF.	2" SURF.	5½" CONCRETE
	A-6			7" BASE (1.85)	4" CT. BASE (1.88)	4" B. BASE (1.88)	2" DRAINAGE BLANKET
I/II	A-5	CLAYS	2.35	3" SURF.	2" SURF.	2" SURF.	6" CONCRETE
	A-7	LL OVER 40		8" BASE (2.44)	6" CT. BASE (2.38)	6" B. BASE (2.38)	2" DRAINAGE BLANKET
	A-7-6	PI OVER 10					
III	A-1	GRAVEL/SAND	1.85	2½" SURF.	2" SURF.	2" SURF.	5½" CONCRETE
	A-2	NO CLAY		6" BASE (1.94)	4" CT. BASE (1.88)	4" B. BASE (1.88)	2" DRAINAGE BLANKET
	A-3						
III	A-4	SILT, SILTY SAND, SANDY SILTY CLAY	2.30	2" SURF.	2" SURF.	2" SURF.	6" CONCRETE
	A-6			2" BINDER 4" BASE (2.32)	6" CT. BASE (2.38)	6" B. BASE (2.38)	2" DRAINAGE BLANKET
III	A-5	CLAYS	3.15	2" SURF.	2" SURF.	2" SURF.	6½" CONCRETE
	A-7	LL OVER 40		3" BINDER 7" BASE (3.18)	2" BINDER 6" CT. BASE (3.26)	2" BINDER 6" B. BASE (3.26)	2" DRAINAGE BLANKET
	A-7-6	PI OVER 10					
IV	A-1	GRAVEL/SAND	2.30	2" SURF.	2" SURF.	2" SURF.	6½" CONCRETE
	A-2	NO CLAY		2" BINDER 4" BASE (2.32)	6" CT. BASE (2.38)	6" B. BASE (2.38)	2" DRAINAGE BLANKET
	A-3						
IV	A-4	SILT, SILTY SAND, SANDY SILTY CLAY	2.75	2" SURF.	2" SURF.	2" SURF.	7" CONCRETE
	A-6			3" BINDER 4" BASE (2.76)	2" BINDER 4" CT. BASE (2.76)	2" BINDER 4" B. BASE (2.76)	2" DRAINAGE BLANKET
IV	A-5	CLAYS	3.45	2" SURF.	2" SURF.	2" SURF.	7½" CONCRETE
	A-7	LL OVER 40		4" BINDER 6" BASE (3.48)	3" BINDER 5" CT. BASE (3.45)	3" BINDER 5" B. BASE (3.45)	2" DRAINAGE BLANKET
	A-7-6	PI OVER 10					
V OR HIGHER		BY FORMAL DESIGN ONLY.					

NOTE:
 INFORMATION IN THE TABLE REPRESENTS MINIMUM PAVEMENT SECTIONS FOR EACH STREET CLASSIFICATION AS SPECIFIED IN THE SPRINGDALE CITY CODE. ACTUAL PAVEMENT SECTIONS WILL BE DESIGNED AND/OR SELECTED ON A PROJECT-SPECIFIC BASIS AND APPROVED BY THE CITY.

MINIMUM PAVEMENT SECTION BY STREET AND SOIL CLASSIFICATION

STANDARD DETAILS FOR STREET & DRAINAGE CONSTRUCTION

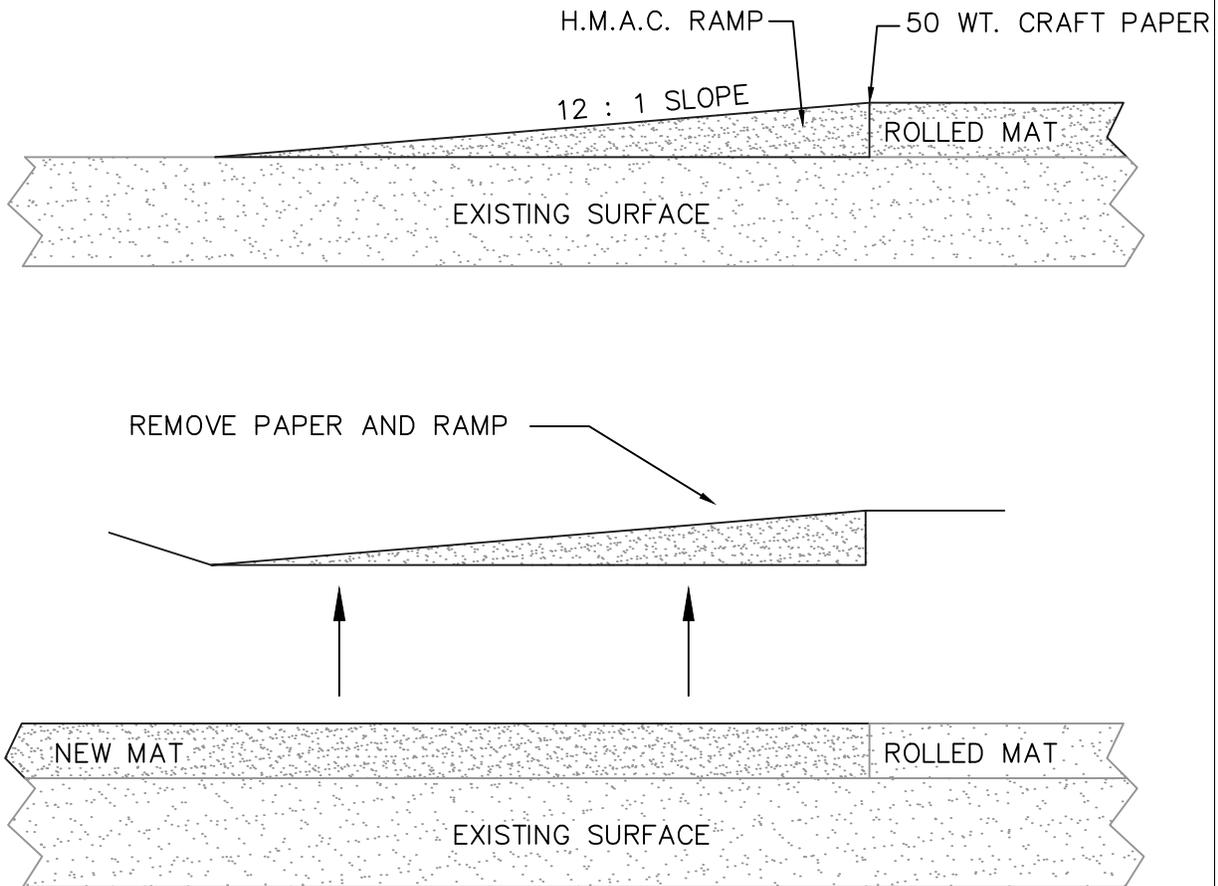
SECTION A
 TYPICAL STREET SECTIONS & DETAILS

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-A-8



SPRINGDALE
 WE'RE MAKING IT HAPPEN



NOTE: JOINT TO BE CONSTRUCTED AT END OF EACH DAY'S PAVING.

H.M.A.C. TRANSVERSE CONSTRUCTION JOINT

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

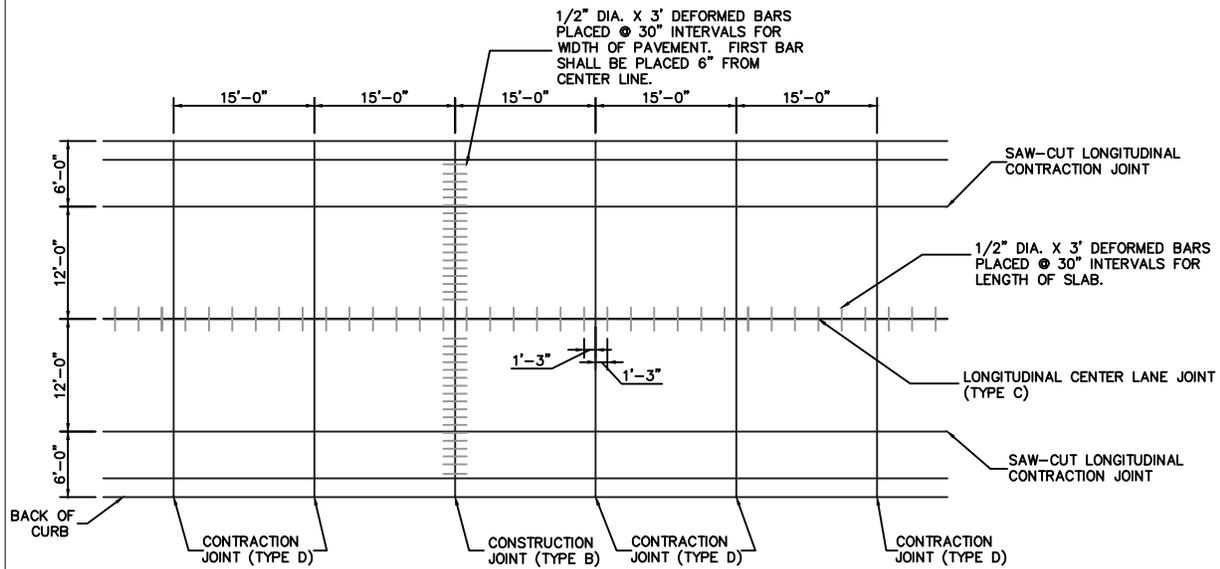
SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-A-9



SPRINGDALE
WE'RE MAKING IT HAPPEN



**CONCRETE PAVEMENT
JOINT LAYOUT PLAN**
(36' STREET WIDTH)
NOT TO SCALE

Note to Engineers: Joint layout for other street widths to be similar in joint spacing.

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

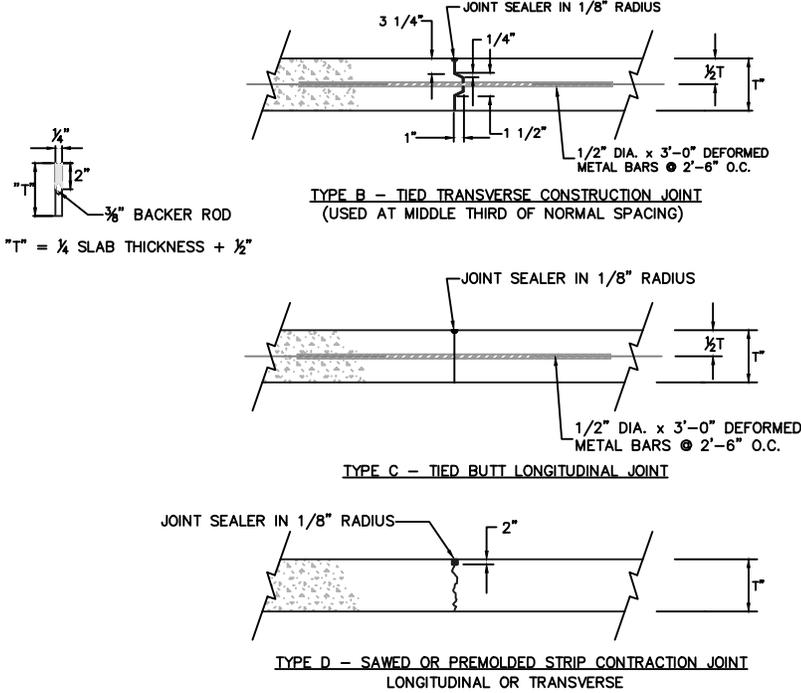
SECTION A
TYPICAL STREET
SECTIONS & DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-A-10



SPRINGDALE
WE'RE MAKING IT HAPPEN



"T" = 1/4 SLAB THICKNESS + 1/2"

NOTES:

1. ALL CONCRETE JOINTING AND CONSTRUCTION METHODS SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE PORTLAND CEMENT ASSOCIATION FOR CONCRETE STREET PAVEMENTS.
2. CONCRETE FOR PAVEMENTS SHALL BE CLASS B , 4000 P.S.I., 6 BAG MIX WITH 4-7% AIR ENTRAINMENT.
3. ALL CONCRETE PAVEMENT SHALL HAVE A TINED FINISH, EXCEPT FOR THE OUTSIDE 2' OF THE PAVEMENT WHICH SHALL HAVE A BROOM FINISH.
4. THE CURB SHALL BE PLACED MONOLITHICALLY WITH THE PAVEMENT. ALL CURB JOINTS SHALL COINCIDE WITH PAVEMENT JOINTS.
5. ALL DOWEL BARS SHALL BE PLACED IN THE PAVEMENT BEFORE INITIAL SET UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. EXPANSION MATERIAL SHALL BE PLACED AT ALL STRUCTURES ABUTTING PAVEMENT.
7. TRANSVERSE EXPANSION JOINTS SHALL BE CONSTRUCTED AT THE CURB RETURNS OF ALL INTERSECTIONS.
8. THE EXPANSION MATERIAL SHALL BE PREFORMED ASPHALT IMPREGNATED FIBERBOARD CONFORMING TO AASHTO M 213.
9. ALL JOINTS SHALL BE SEALED WITH APPROVED JOINT SEALER. SEE JOINT DETAIL FOR JOINT SEALER.
10. CONTRACTION JOINTS SHALL COINCIDE WITH PAVEMENT JOINTS. SEE TYPICAL DETAILS.

JOINTS FOR CONCRETE PAVEMENT
NOT TO SCALE

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

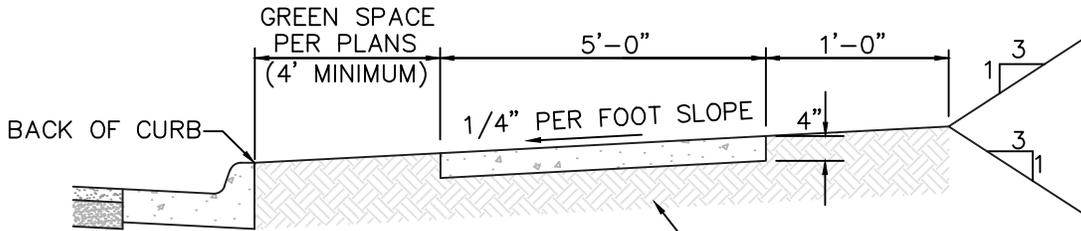
**SECTION A
TYPICAL STREET
SECTIONS & DETAILS**

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-A-11



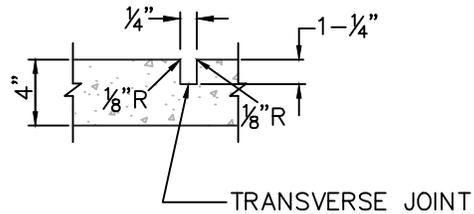
SPRINGDALE
WE'RE MAKING IT HAPPEN



APPROVED MATERIAL
COMPACTED TO 90% OF
STANDARD PROCTOR DENSITY
PER ASTM D698

NOTES:

1. 1/2" ASPHALT IMPREGNATED W/ FIBERBOARD EXPANSION MATERIAL CONFORMING TO AASHTO M213 IS TO BE PLACED AT ALL DRIVEWAYS, AT MAXIMUM 200' INTERVALS, OR AS DIRECTED BY ENGINEER.
2. TRANSVERSE JOINTS TO BE PLACED AT 5' INTERVALS PERPENDICULAR TO SIDEWALK.
3. SAWED JOINTS MAY BE USED INSTEAD OF TOOLED JOINTS. ALL SAWED JOINTS SHALL BE SEALED USING AN APPROVED SEALANT.
4. OTHER JOINTS MAY BE REQUIRED IF DIRECTED BY THE ENGINEER.
5. CONCRETE FOR SIDEWALK TO BE CLASS A, 3000 PSI, 5.5 BAG MIX W/ 4-7% AIR ENTRAINMENT.



SIDEWALK DETAIL
NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

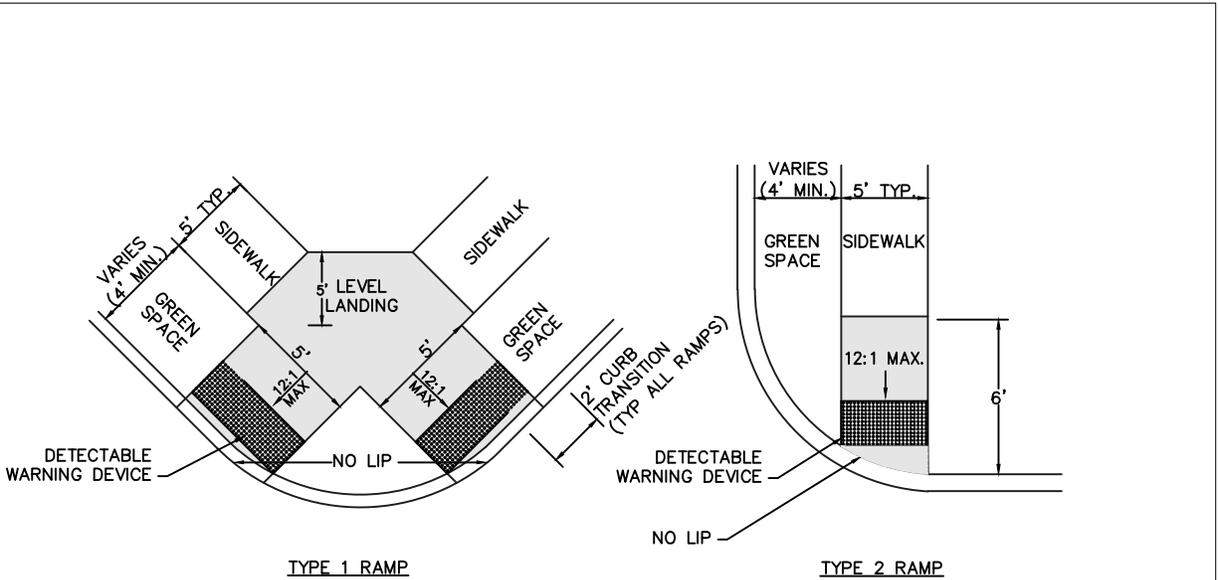
SECTION B
TYPICAL STREET, DRIVEWAY &
SIDEWALK DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-B-1

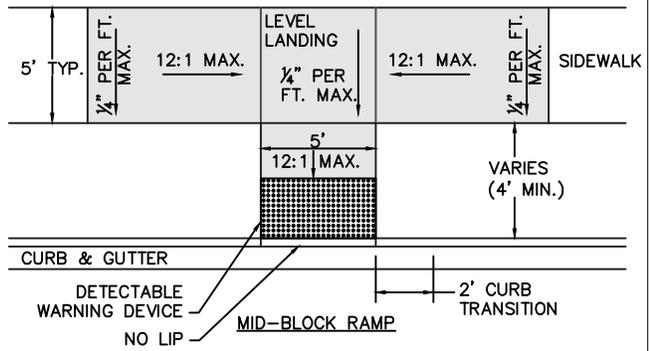


SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTES:

1. THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1.
2. THE NORMAL GUTTER SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
3. THE MINIMUM THICKNESS FOR THE RAMP, WALK, & LANDING SHALL BE 4".
4. DETECTABLE WARNING DEVICES SHALL BE PLACED AT ALL LOCATIONS WHERE RAMPS CROSS A CURB.



HANDICAP RAMP DETAILS

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION B
TYPICAL STREET, DRIVEWAY &
SIDEWALK DETAILS

DATE: NOVEMBER 2016

DESIGNED BY: KPP

DRAWN BY: KPP

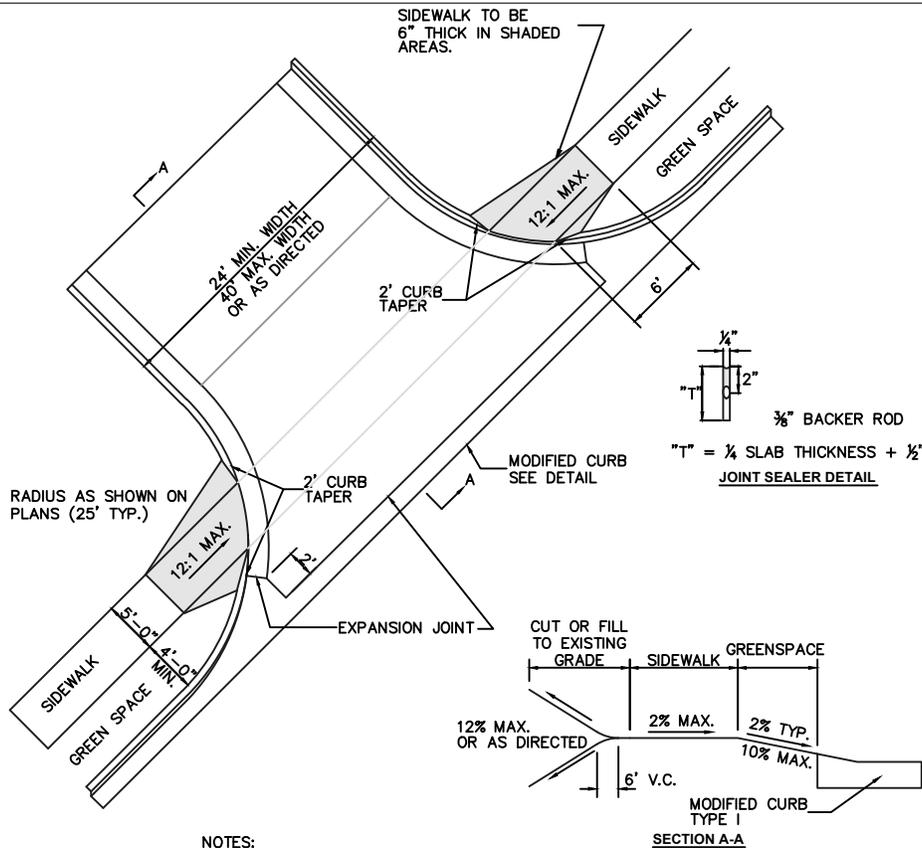
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-B-2



SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTES:

1. DRIVEWAY TO BE CONSTRUCTED TO THE RADIUS TANGENT POINTS AND ALSO TO STREET R/W AS DIRECTED, IF NEEDED.
1. 1/2" PREFORMED EXPANSION MATERIAL CONFORMING TO AASHTO M213, ASTM D-1752, TYPE 1 OR REDWOOD SHALL BE PLACED AS SHOWN, OR AS DIRECTED BY THE ENGINEER.
2. CONCRETE CURB TO BE SAWCUT AT 15' INTERVALS PERPENDICULAR TO THE GUTTER LINE AND SEALED SEE DETAIL.
3. HANDICAP RAMP COMPLYING WITH A.D.A. REQUIREMENTS TO BE CONSTRUCTED AT ALL COMMERCIAL DRIVEWAYS.
4. CONTRACTION JOINTS TO BE PLACED IN CONCRETE DRIVEWAY SO THAT NO SLAB DIMENSION IS MORE THAN 15'.
5. DRIVEWAY SECTION TO BE 3" ASPHALT WITH 6" AGGREGATE BASE COURSE UNLESS OTHERWISE SPECIFIED.

COMMERCIAL DRIVEWAY DETAIL

NOT TO SCALE

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

**SECTION B
TYPICAL STREET, DRIVEWAY &
SIDEWALK DETAILS**

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

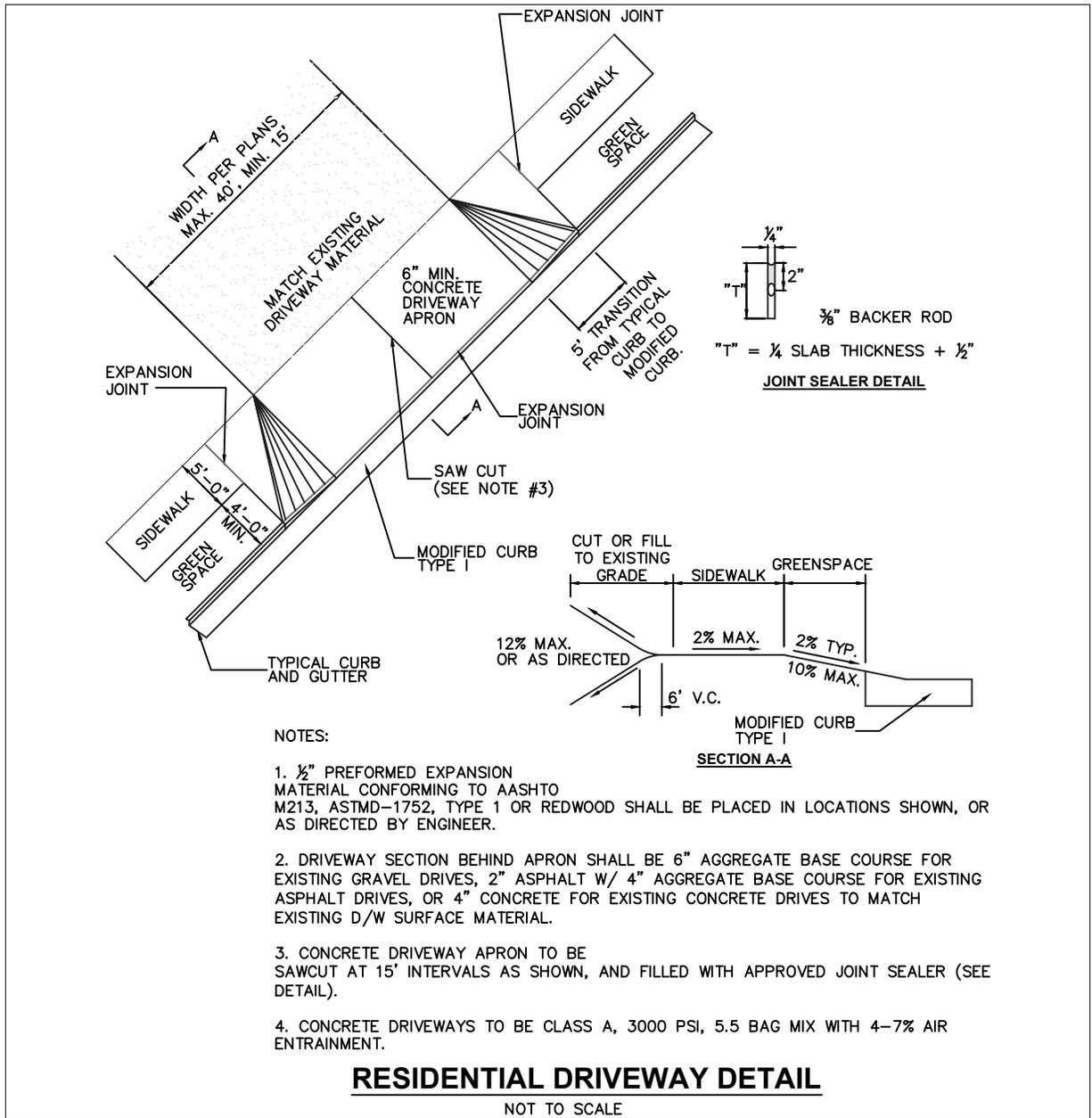
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-B-3



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR STREET & DRAINAGE CONSTRUCTION

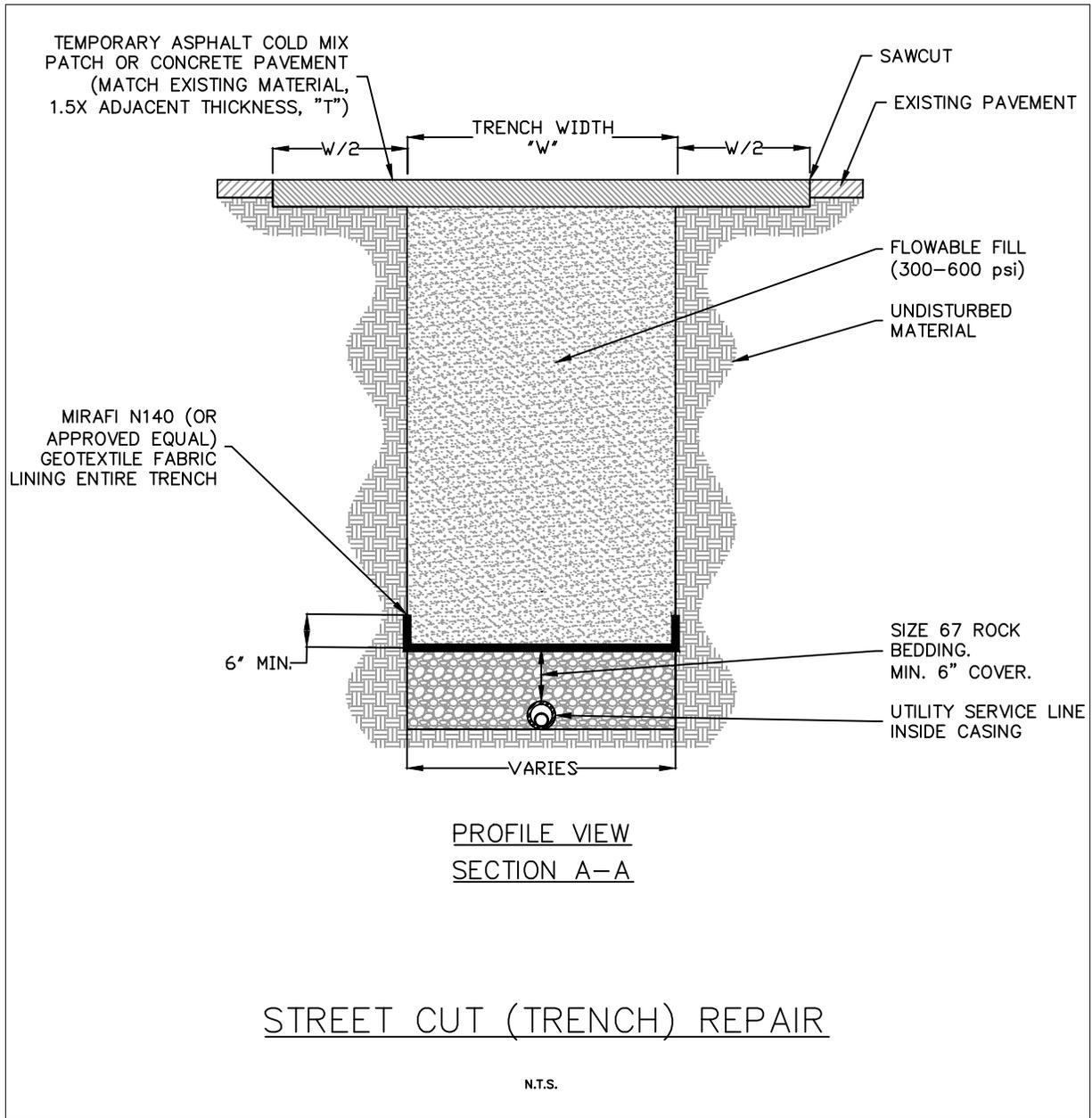
**SECTION B
TYPICAL STREET, DRIVEWAY & SIDEWALK DETAILS**

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-B-4



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION B
TYPICAL STREET, DRIVEWAY &
SIDEWALK DETAILS

DATE: OCTOBER 2016

DESIGNED BY: KPP

DRAWN BY: KPP

CHECKED BY: BNB

APPROVED BY: BNB

FILE NO. SD-B-5



SPRINGDALE
WE'RE MAKING IT HAPPEN

SECTION 'C' OF SPRINGDALE STANDARD DETAILS , PAVEMENT MARKING DETAILS,
ARE NOW DEFINED BY MOST RECENT VERSION OF MUTDC.

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION C
PAVEMENT MARKING DETAILS

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

CHECKED BY: KPP

APPROVED BY: BNB

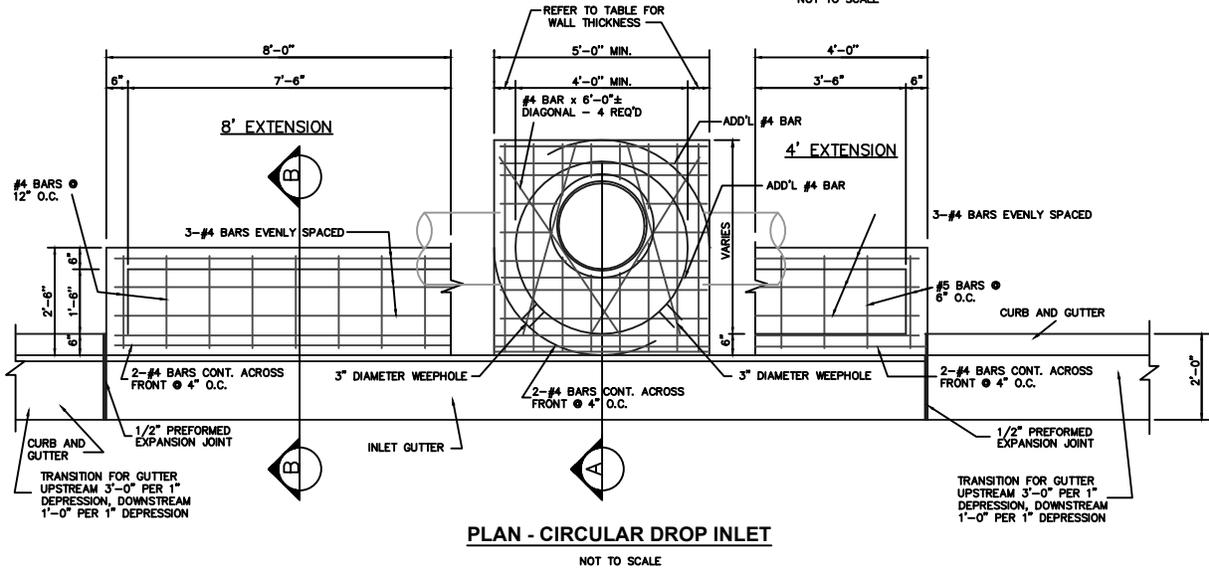
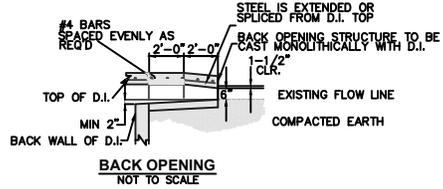
FILE NO. SD-C



SPRINGDALE
WE'RE MAKING IT HAPPEN

REINFORCING TABLE

I.D. OF DROP INLET	TOP CONCRETE SLAB REINFORCING
4' I.D.	#4'S @ 8" O.C. E.W.
5' I.D.	#4'S @ 7" O.C. E.W.
6' I.D.	#5'S @ 9" O.C. E.W.



**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

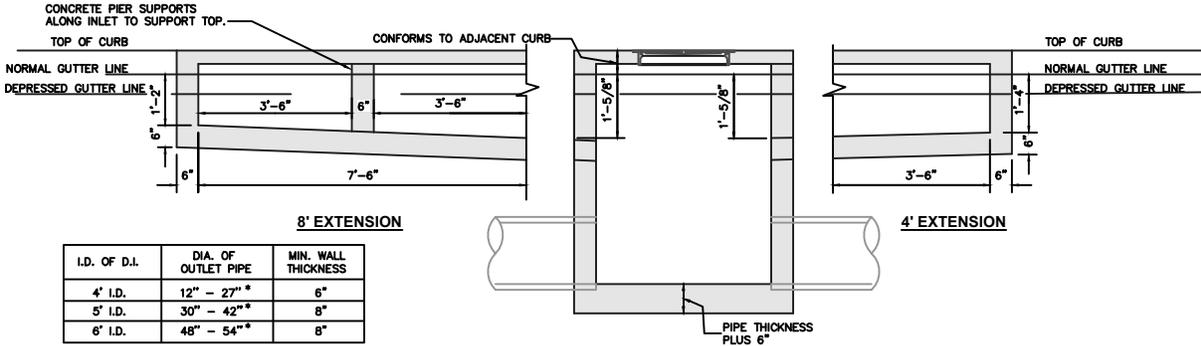
**SECTION D
DROP INLET DETAILS**

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-D-1



SPRINGDALE
WE'RE MAKING IT HAPPEN



*LIMIT DEFLECTION TO 60 DEGREES. IF GREATER USE NEXT LARGER MANHOLE DIAMETER

NOTES:

- 1.) ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
- 2.) ALL REINFORCEMENT BARS SHALL BE GRADE 60 AND SHALL HAVE A MINIMUM 1-1/2" COVER UNLESS OTHERWISE NOTED.
- 3.) BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
- 4.) INVERTS SHALL BE POURED MONOLITHICALLY WITH FOOTING.
- 5.) CURB INLET BACK OPENING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 6.) WHEN AN INLET IS PLACED ADJACENT TO CONCRETE PAVEMENT THE GUTTER DEPRESSION SHALL BE FORMED IN CONCRETE PAVEMENT.
- 7.) PIPES MAY ENTER BOX FROM ANY ANGLE OR ELEVATION AS DIRECTED BY THE ENGINEER. REINFORCING BARS SHALL BE CUT TO CLEAR PIPE BY 1-1/2"
- 8.) THE EXPANSION JOINT SHALL HAVE A THICKNESS OF 1/2" INCH AND CONFORM TO AASHTO M213.
- 9.) REFER TO CURB AND GUTTER DETAILS FOR APPROPRIATE CURB CONFIGURATION AND GUTTER DIMENSIONS AT EACH INLET LOCATION.
- 10.) REFER TO PLAN AND PROFILE SHEETS TO DETERMINE EXTENSIONS AND SIZE (IF ANY) ACCOMPANYING CIRCULAR DROP INLET.
- 11.) CONCRETE FOR CIRCULAR DROP INLET TO BE CLASS A, 3000 PSI, 5.5 BAG MIX WITH 4-7% AIR ENTRAINMENT.

SECTION - CIRCULAR DROP INLET

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION D
DROP INLET DETAILS

DATE: OCTOBER 2016

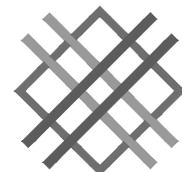
DESIGNED BY: WWP

DRAWN BY: WWP

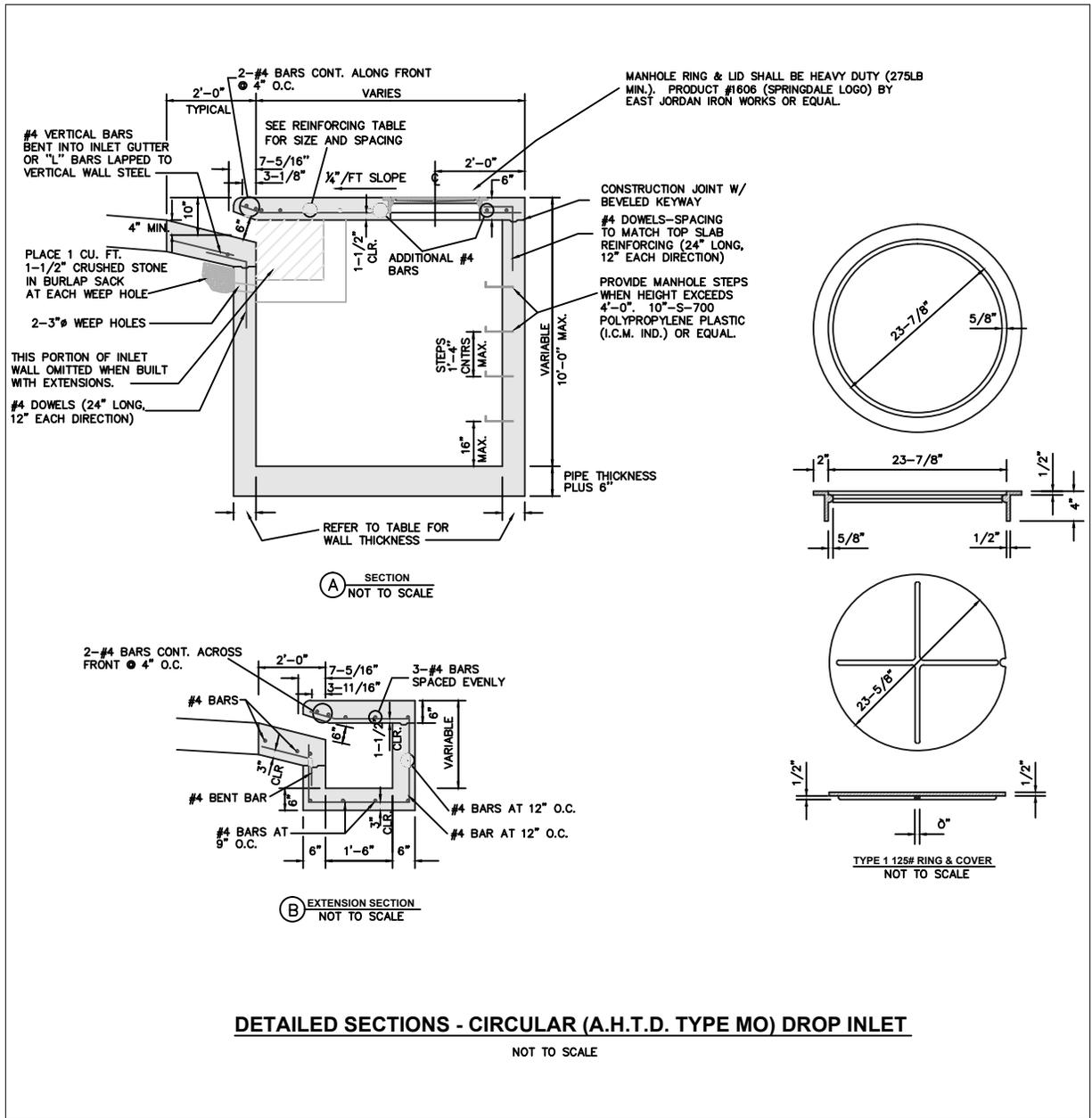
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-D-2



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

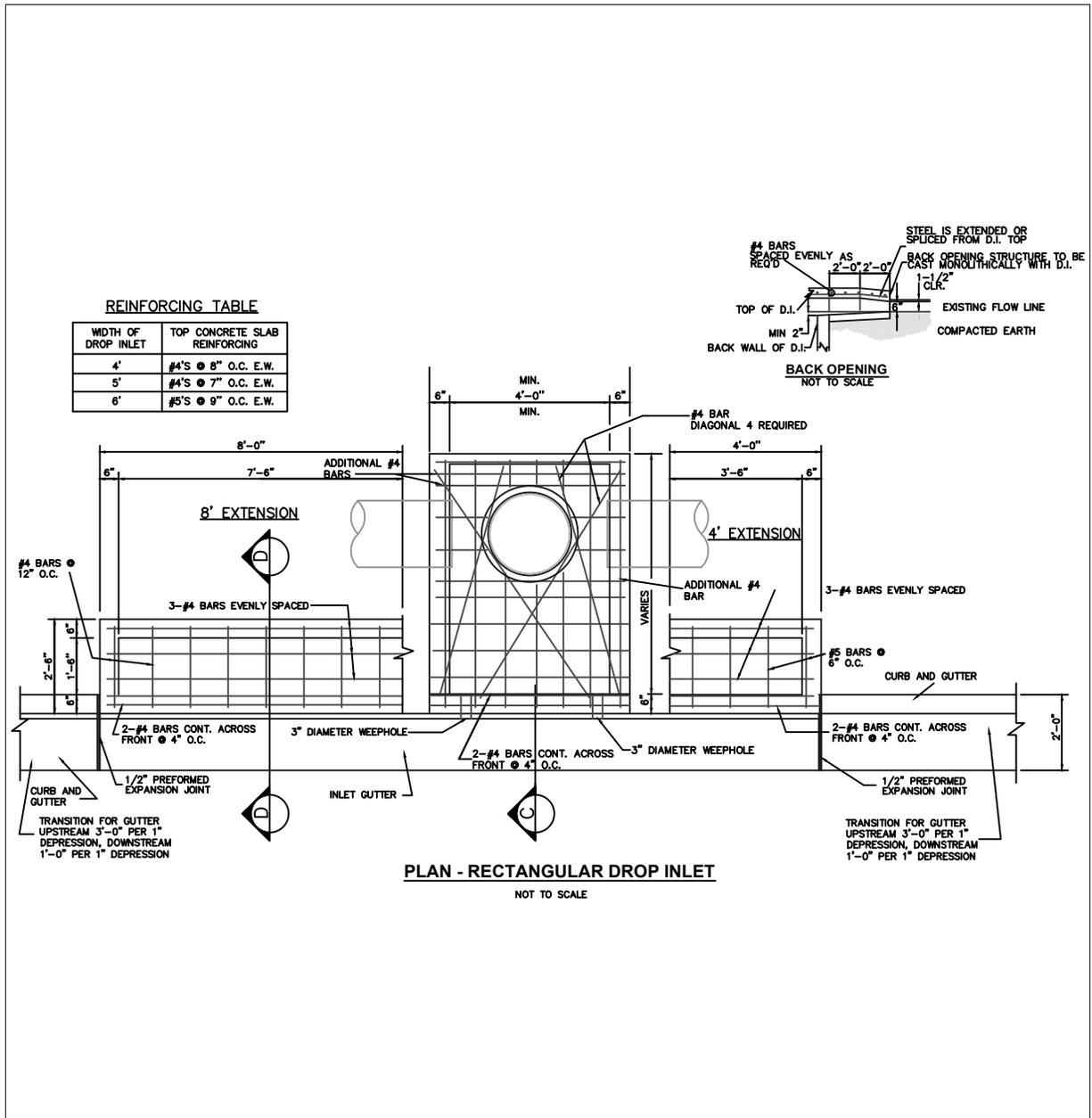
SECTION D
DROP INLET DETAILS

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-D-3

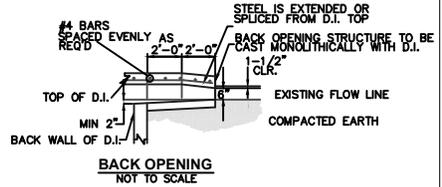


SPRINGDALE
WE'RE MAKING IT HAPPEN



REINFORCING TABLE

WIDTH OF DROP INLET	TOP CONCRETE SLAB REINFORCING
4'	#4'S @ 8" O.C. E.W.
5'	#4'S @ 7" O.C. E.W.
6'	#5'S @ 9" O.C. E.W.



PLAN - RECTANGULAR DROP INLET

NOT TO SCALE

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

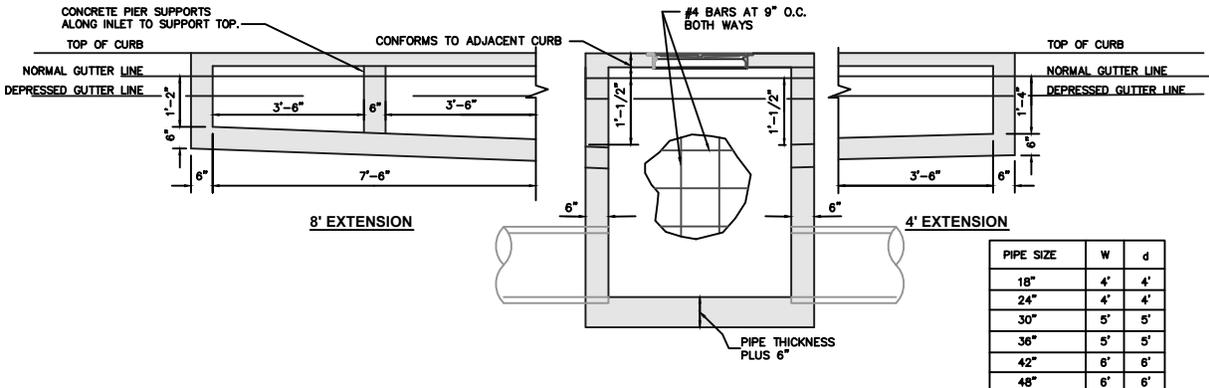
**SECTION D
DROP INLET DETAILS**

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-D-4



SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTES:

- 1.) ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
- 2.) ALL REINFORCEMENT BARS SHALL BE GRADE 60 AND SHALL HAVE A MINIMUM 1-1/2" COVER UNLESS OTHERWISE NOTED.
- 3.) CURB INLET BACK OPENING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 4.) WHEN AN INLET IS PLACED ADJACENT TO CONCRETE PAVEMENT THE GUTTER DEPRESSION SHALL BE FORMED IN CONCRETE PAVEMENT.
- 5.) PIPES MAY ENTER BOX FROM ANY ANGLE OR ELEVATION AS DIRECTED BY THE ENGINEER. REINFORCING BARS SHALL BE CUT TO CLEAR PIPE BY 1-1/2"
- 6.) THE EXPANSION JOINT SHALL HAVE A THICKNESS OF ONE-HALF INCH AND CONFORM TO AASHTO M213.
- 7.) ALL REINFORCEMENT BARS SHALL BE GRADE 60 AND SHALL HAVE A MINIMUM OF 1-1/2" COVER UNLESS OTHERWISE NOTED.
- 8.) REFER TO PLAN AND PROFILE SHEETS TO DETERMINE EXTENSIONS AND SIZE (IF ANY) ACCOMPANYING DROP INLET.
- 9.) EXTENSIONS WITH LENGTHS DESIGNATED ON THE PLANS EXCEEDING 8'-0" SHALL HAVE THE SAME INSIDE DEPTH DIMENSIONS AS STATED ON DETAILS UNLESS OTHERWISE NOTED.
- 10.) CONCRETE FOR RECTANGULAR DROP INLETS SHALL BE CLASS A, 3000 PSI, 5.5 BAG MIX WITH 4-7% AIR ENTRAINMENT.

SECTION - RECTANGULAR DROP INLET

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION D
DROP INLET DETAILS

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

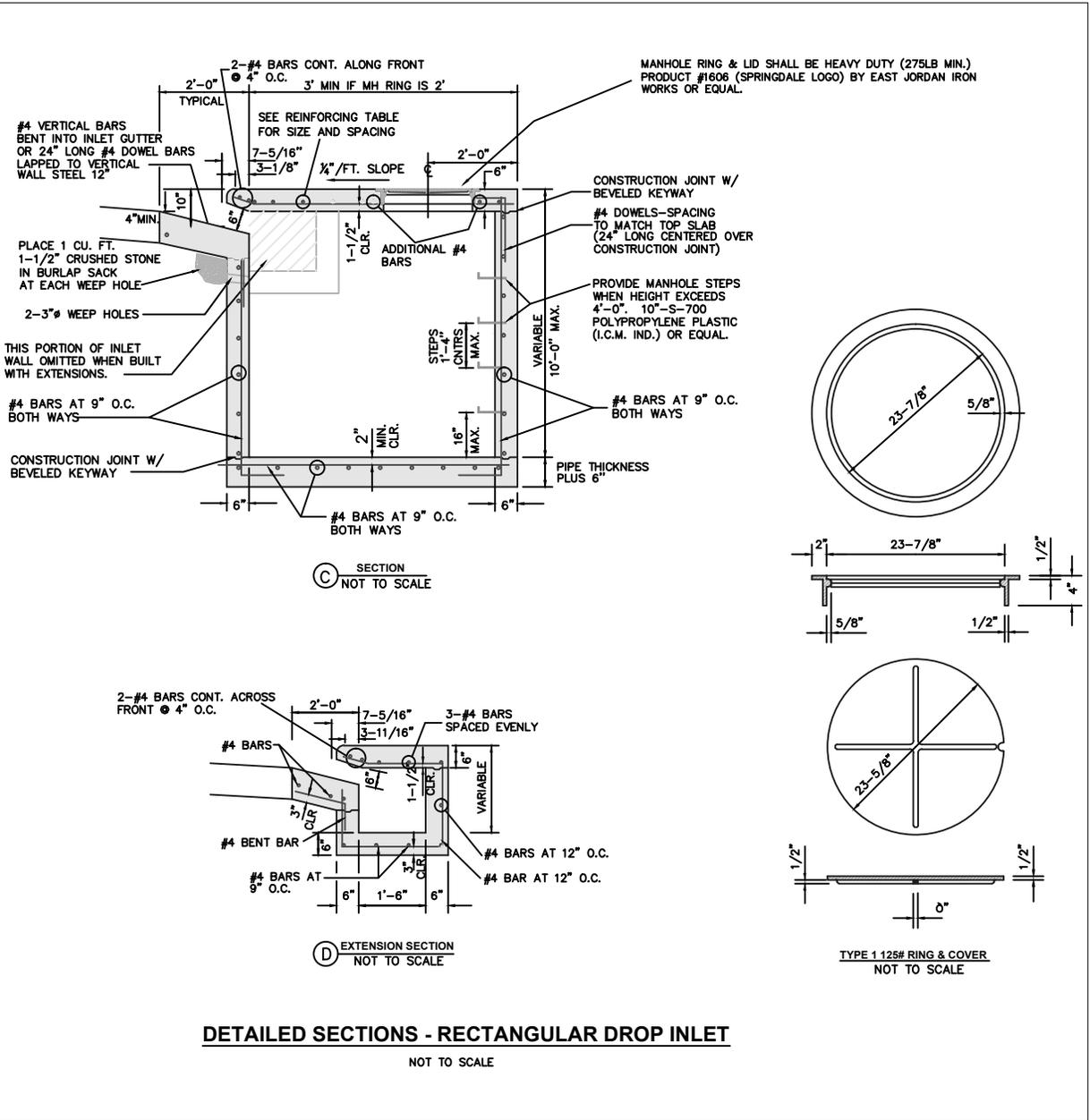
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-D-5



SPRINGDALE
WE'RE MAKING IT HAPPEN



DETAILED SECTIONS - RECTANGULAR DROP INLET

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION D
DROP INLET DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-D-6



SPRINGDALE
WE'RE MAKING IT HAPPEN

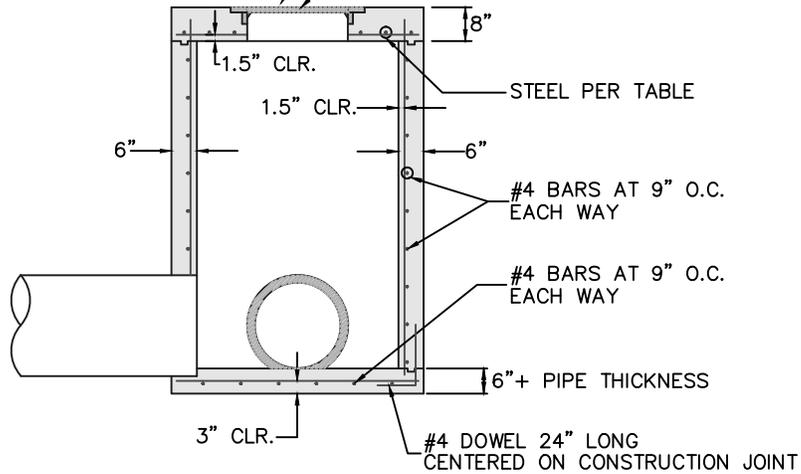
REINFORCING TABLE

PIPE SIZE	W	d
18"	4'	4'
24"	4'	4'
30"	5'	5'
36"	5'	5'
42"	6'	6'
48"	6'	6'

WIDTH OF DROP INLET	TOP CONCRETE SLAB REINFORCING
4'	#4'S @ 8" O.C. E.W.
5'	#4'S @ 7" O.C. E.W.
6'	#5'S @ 9" O.C. E.W.

MANHOLE RING & LID SHALL BE HEAVY DUTY (275LB MIN.) PRODUCT #1606 (SPRINGDALE LOGO) BY EAST JORDAN IRON WORKS OR EQUAL.

MATCH PROPOSED FORE SLOPE SURFACE ELEVATION



NOTES:

1. PIPES MAY ENTER BOX FROM ANY ANGLE OR ELEVATION AS APPROVED BY ENGINEER.
2. REINFORCING BARS SHALL BE CUT TO CLEAR PIPE BY 1-1/2".
3. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS.
4. ALL REINFORCING BARS SHALL HAVE 1-1/2" MINIMUM COVER.
5. PLASTIC COATED STEPS SHALL BE INSTALLED IN ALL JUNCTION BOXES 4'-0" IN DEPTH OR GREATER.
6. EXTENSION LENGTHS SHOWN ON THE PLANS SHALL BE TAKEN TO MEAN CLEAR OPENING LENGTH, NOT INCLUDING WIDTHS OF SUPPORTS.
7. CONCRETE FOR JUNCTION BOXES TO BE CLASS A, 3000 PSI, 5.5 BAG MIX WITH 4-7% AIR ENTRAINMENT.

TYPICAL JUNCTION BOX

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION D
DROP INLET DETAILS

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

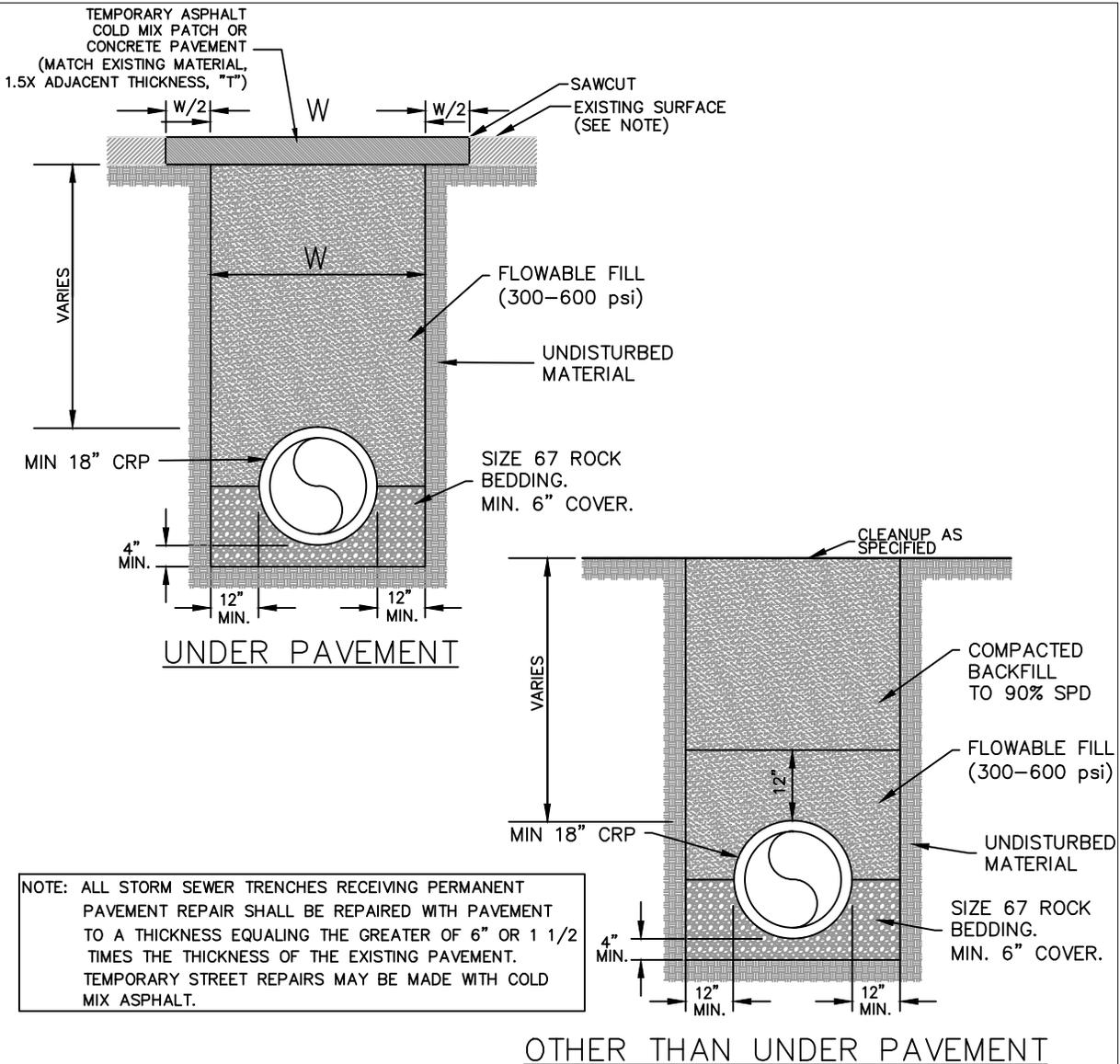
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-D-7



SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTE: ALL STORM SEWER TRENCHES RECEIVING PERMANENT PAVEMENT REPAIR SHALL BE REPAIRED WITH PAVEMENT TO A THICKNESS EQUALING THE GREATER OF 6" OR 1 1/2 TIMES THE THICKNESS OF THE EXISTING PAVEMENT. TEMPORARY STREET REPAIRS MAY BE MADE WITH COLD MIX ASPHALT.

STORM SEWER BEDDING AND BACKFILL

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION D
DROP INLET DETAILS

DATE: OCTOBER 2016
DESIGNED BY: KPP
DRAWN BY: KPP
CHECKED BY: BNB
APPROVED BY: BNB

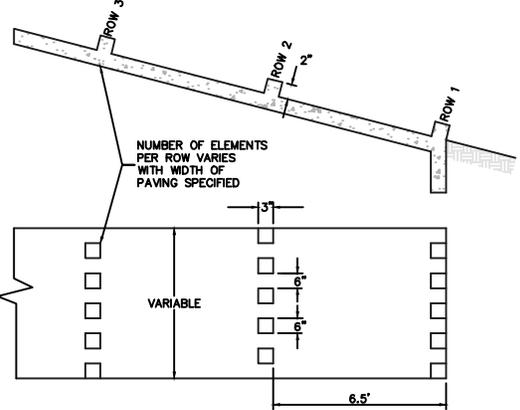
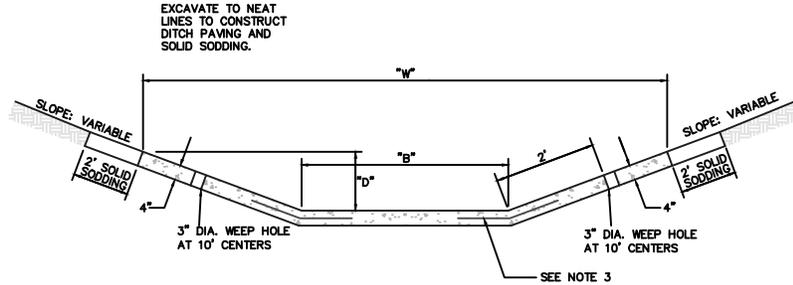
FILE NO. SD-D-8



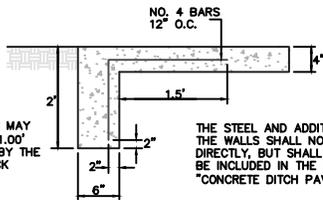
SPRINGDALE
WE'RE MAKING IT HAPPEN

NOTES:

1. TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.
2. SOLID SOD ALONG DITCH PAVING (IF SPECIFIED) TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.
3. CONSTRUCTION JOINTS MAY BE USED AT THE CONTRACTOR'S OPTION. #4 DOWELS, 24" LONG CENTERED ON THE JOINT SHALL BE PLACED AT 36" CENTERS THE ENTIRE LENGTH OF THE JOINT.
4. ENERGY DISSIPATORS SHALL BE PLACED WHERE SHOWN ON THE PLANS. PAYMENT FOR DISSIPATORS TO BE SUBSIDIARY TO CONCRETE DITCH PAVING.
5. TRANSVERSE JOINTS (SAWED OR TOOLED) TO BE PLACED AT MAX 15' INTERVALS.



TOE WALL DEPTH MAY BE ALTERED TO 1.00' WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION.



TOE WALL DETAIL FOR CONCRETE DITCH PAVING

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."

CONCRETE DITCH PAVING

NOT TO SCALE

ENERGY DISSIPATORS

NOTES TO ENGINEER:

1. "W", "B", AND "D" ARE TO BE AS REQUIRED BY HYDRAULIC DESIGN.
2. DISSIPATORS ARE TO BE USED WHEN VELOCITY EXCEED 8 FEET PER SECOND.

STANDARD DETAILS FOR STREET & DRAINAGE CONSTRUCTION

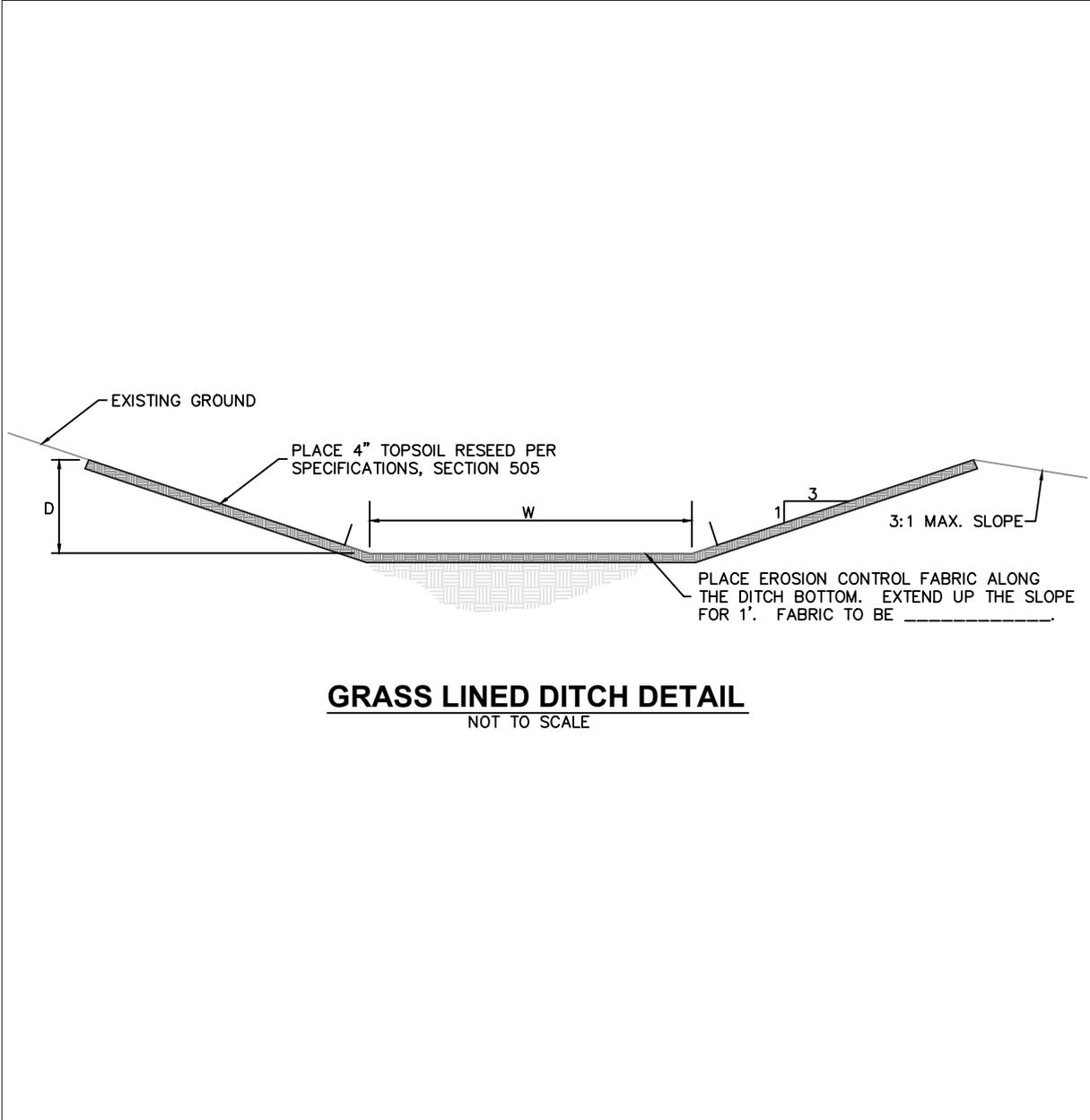
SECTION E DITCHES

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-E-1



SPRINGDALE
 WE'RE MAKING IT HAPPEN



GRASS LINED DITCH DETAIL
NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

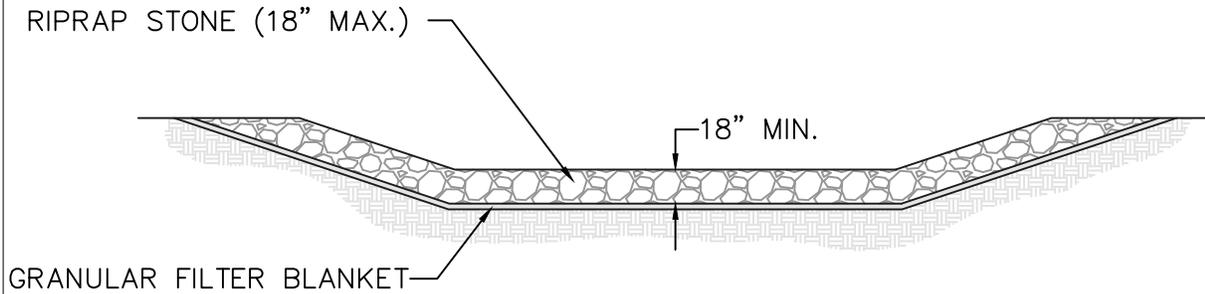
SECTION E
DITCHES

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-E-2



SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTE:
FABRIC MAY BE USED IN LIEU OF GRANULAR
MATERIAL. SEE SECTION 306 OF THE
SPRINGDALE STANDARD SPECIFICATIONS.

RIPRAP LINED DITCH DETAIL

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION E
DITCHES

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

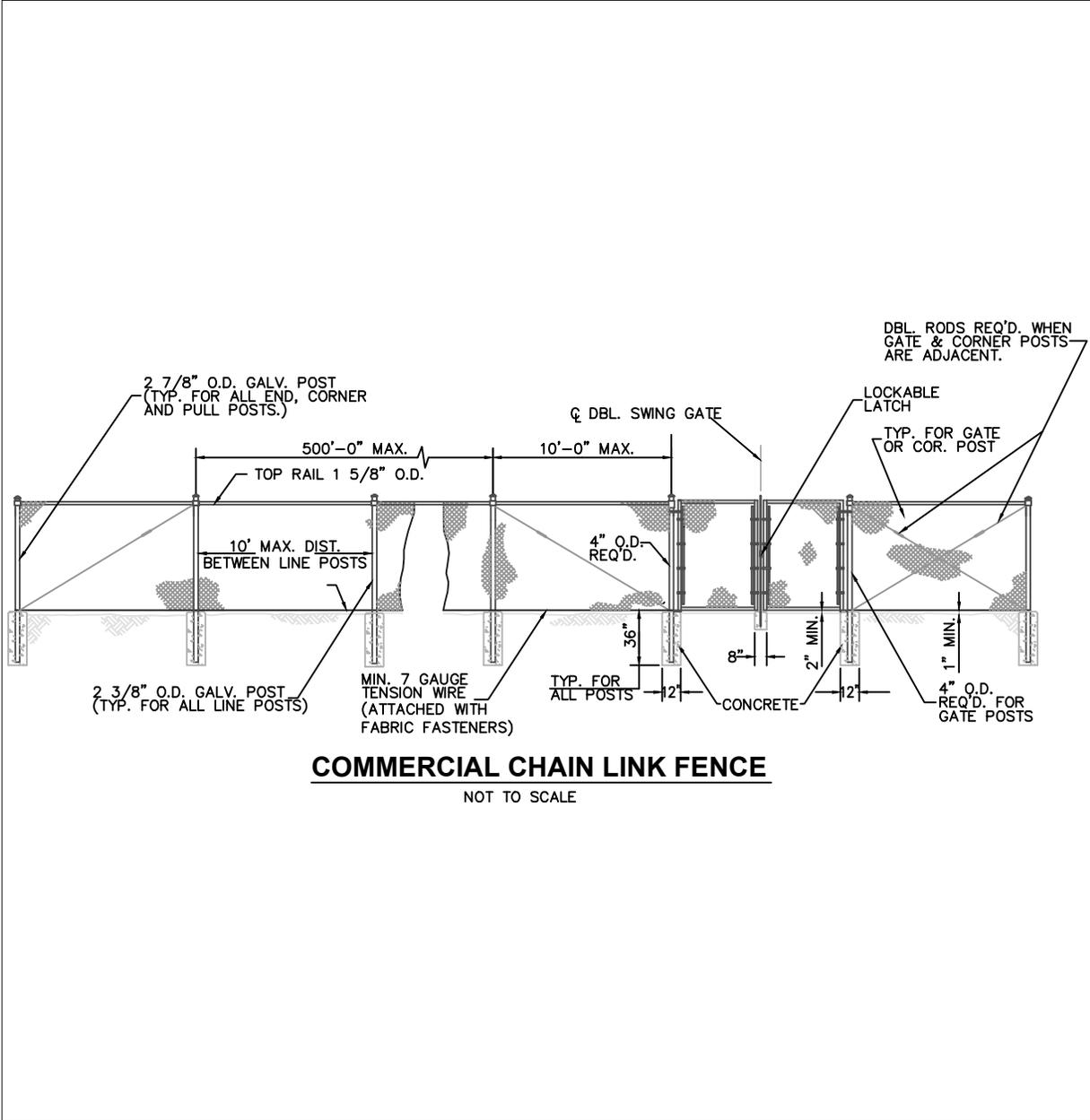
CHECKED BY: KPP

APPROVED BY: BNB

FILE NO. SD-E-3



SPRINGDALE
WE'RE MAKING IT HAPPEN



COMMERCIAL CHAIN LINK FENCE

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

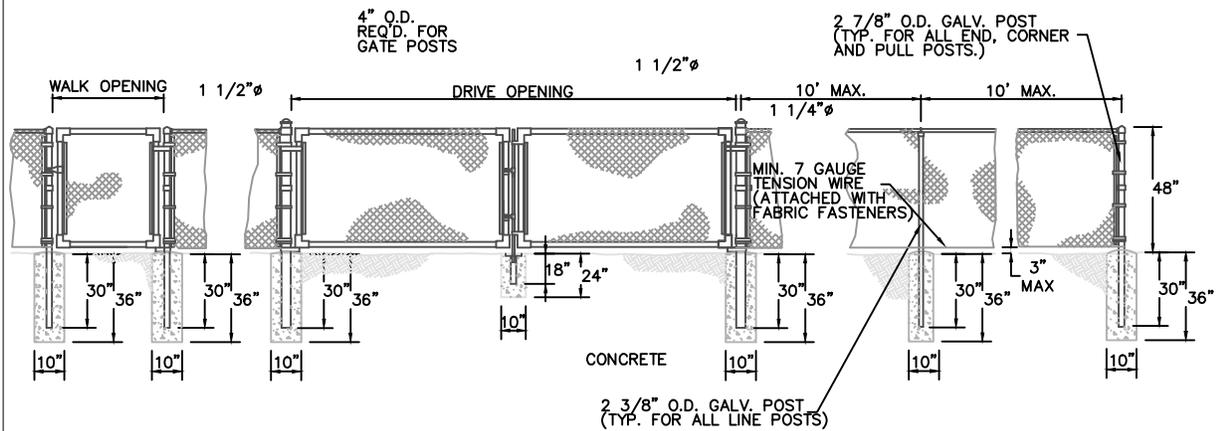
SECTION F
FENCES

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-F-1



SPRINGDALE
WE'RE MAKING IT HAPPEN



RESIDENTIAL CHAIN LINK FENCE
NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

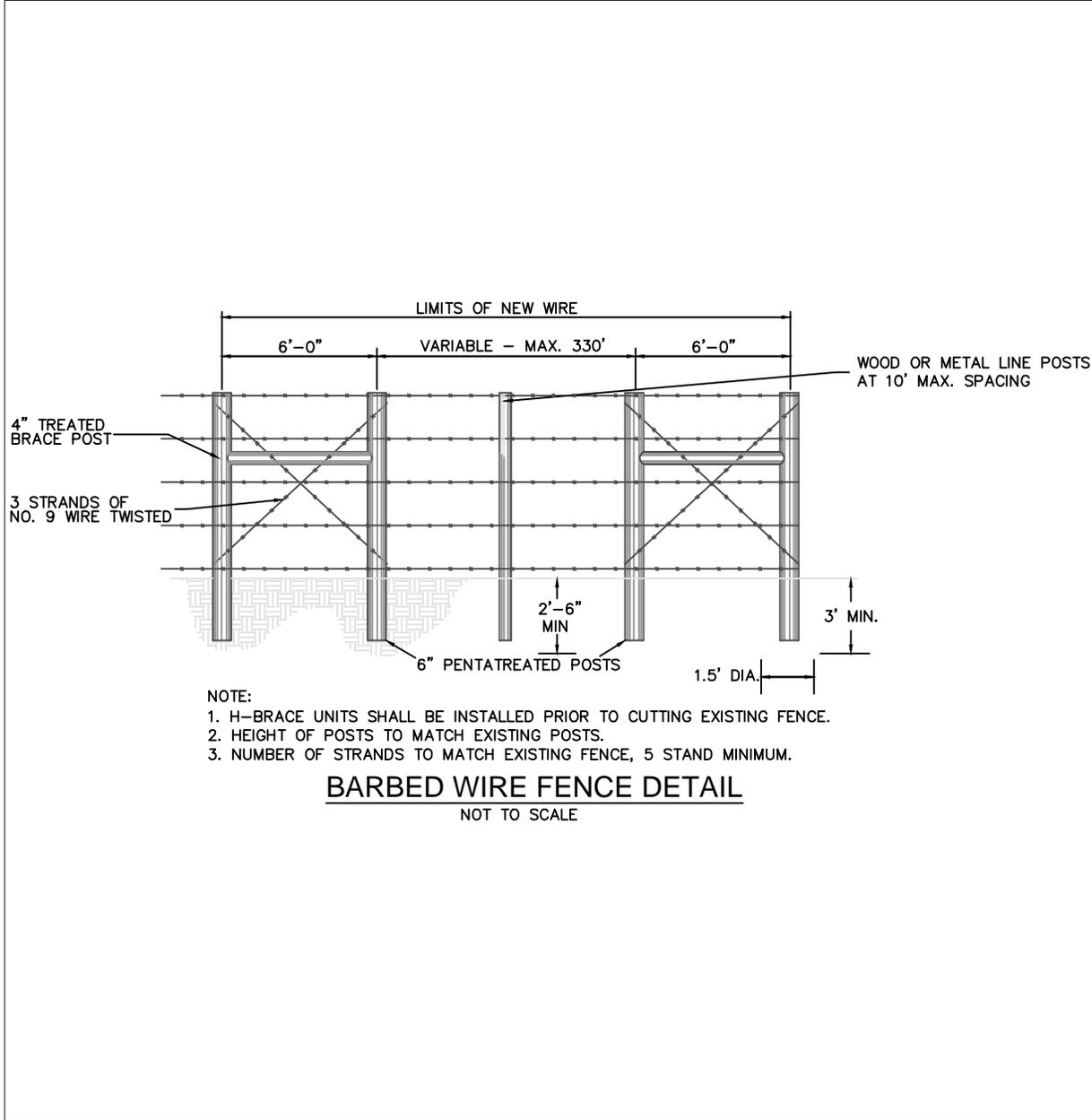
SECTION F
FENCES

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-F-2



SPRINGDALE
WE'RE MAKING IT HAPPEN



- NOTE:
1. H-BRACE UNITS SHALL BE INSTALLED PRIOR TO CUTTING EXISTING FENCE.
 2. HEIGHT OF POSTS TO MATCH EXISTING POSTS.
 3. NUMBER OF STRANDS TO MATCH EXISTING FENCE, 5 STAND MINIMUM.

BARBED WIRE FENCE DETAIL
NOT TO SCALE

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

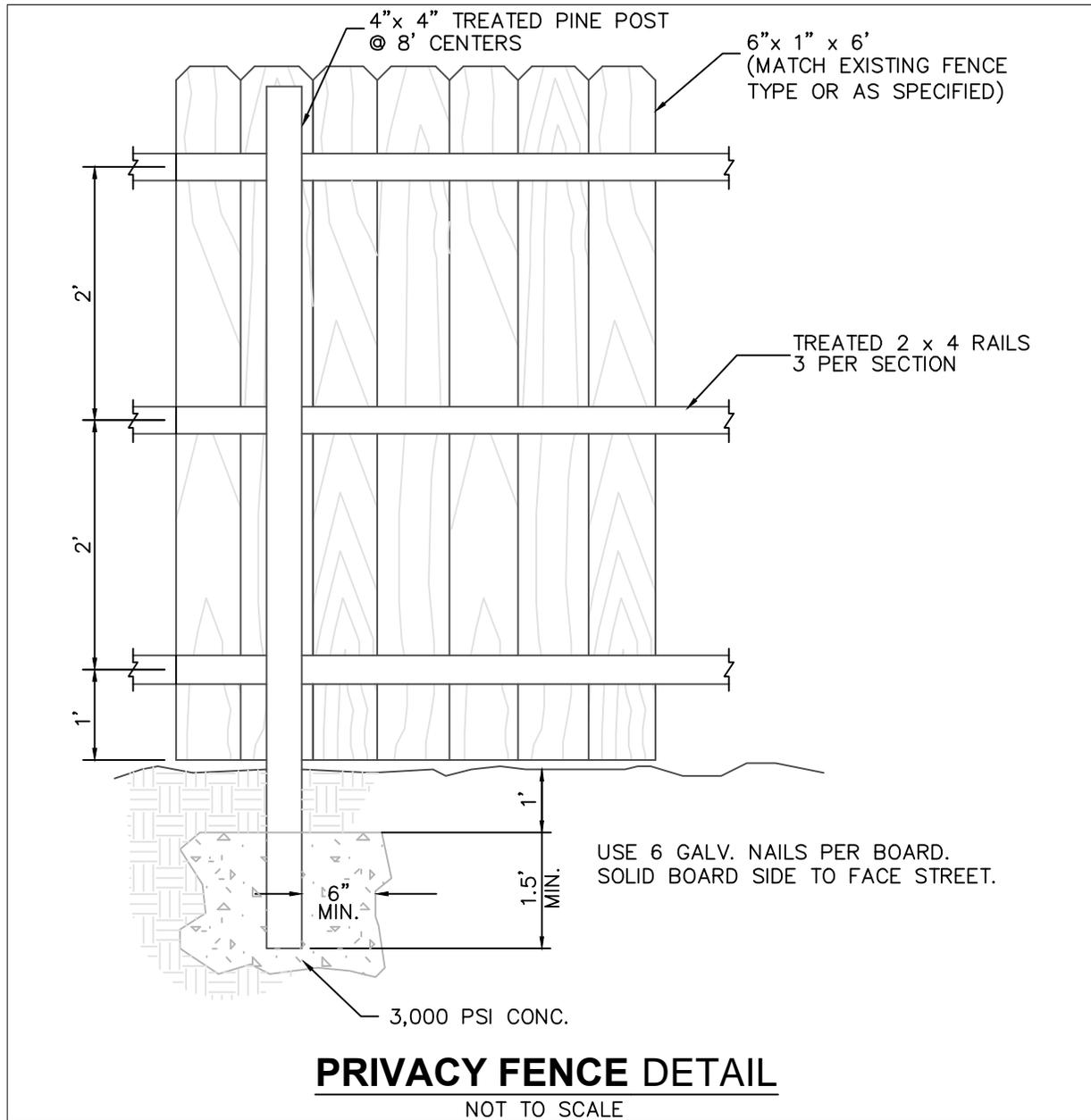
**SECTION F
FENCES**

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-F-3



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION F
FENCES

DATE: OCTOBER 2016

DESIGNED BY: WWP

DRAWN BY: WWP

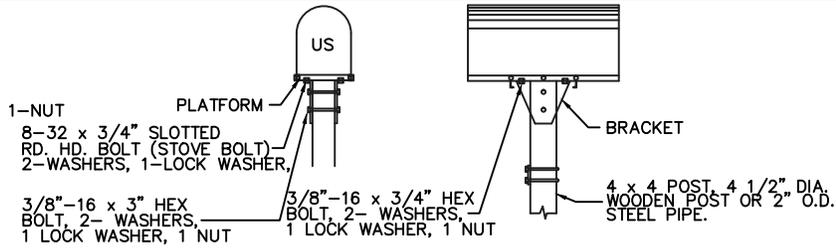
CHECKED BY: KPP

APPROVED BY: BNB

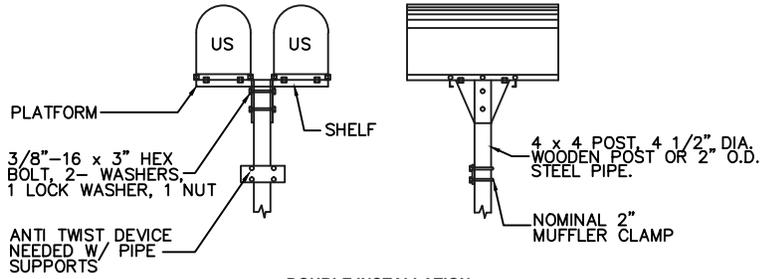
FILE NO. SD-F-4



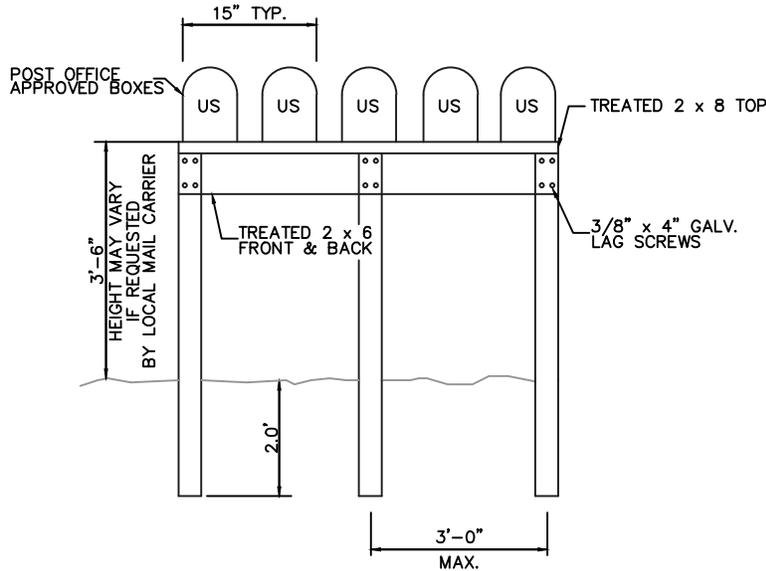
SPRINGDALE
WE'RE MAKING IT HAPPEN



SINGLE INSTALLATION



DOUBLE INSTALLATION



TYPICAL MAILBOX RELOCATION DETAIL

NOT TO SCALE

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

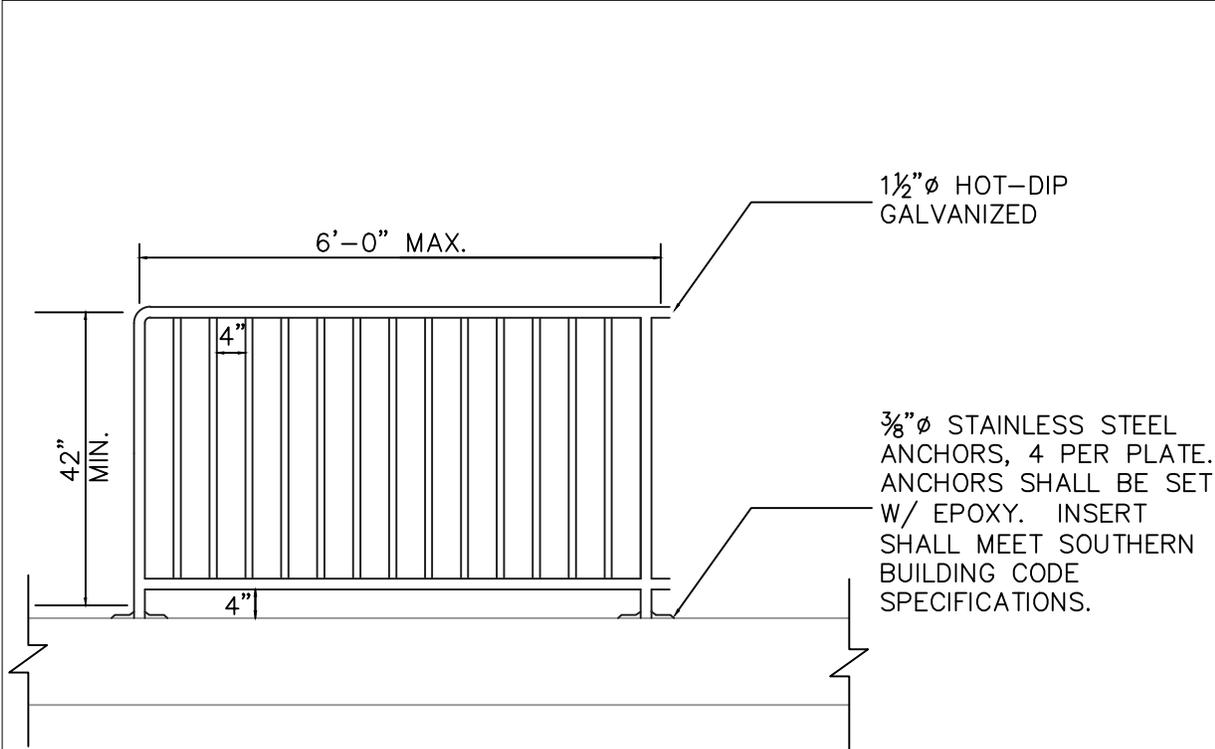
**SECTION G
MISCELLANEOUS DETAILS**

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

FILE NO. SD-G-1



SPRINGDALE
WE'RE MAKING IT HAPPEN



NOTE:
ALL HANDRAIL TO BE ADA COMPLIANT.

TYPICAL HANDRAIL DETAIL

NOT TO SCALE

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION G
MISCELLANEOUS DETAILS

DATE: NOVEMBER 2016

DESIGNED BY: KPP

DRAWN BY: KPP

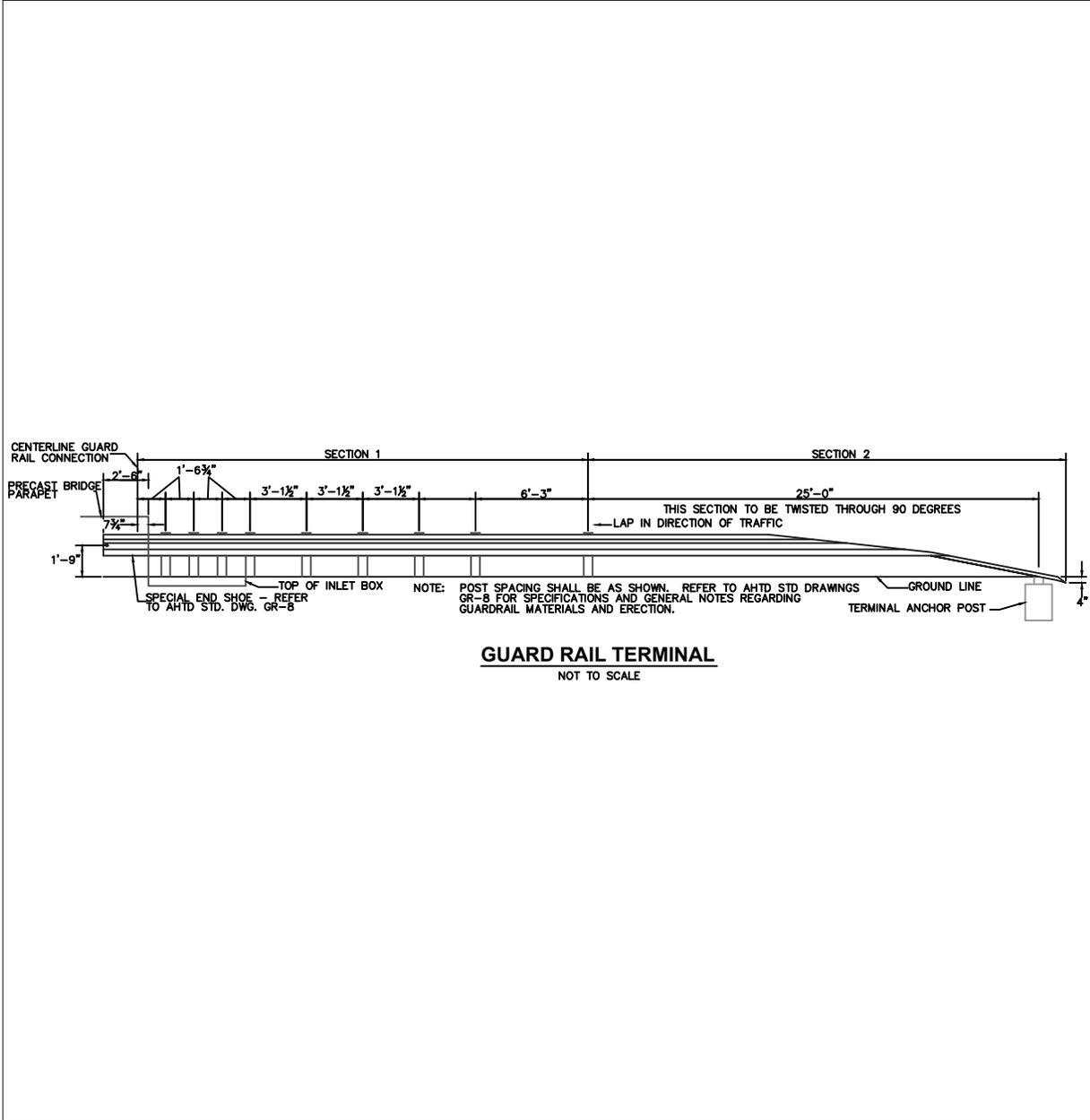
CHECKED BY: BNB

APPROVED BY: BNB

FILE NO. SD-G-2



SPRINGDALE
WE'RE MAKING IT HAPPEN



STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

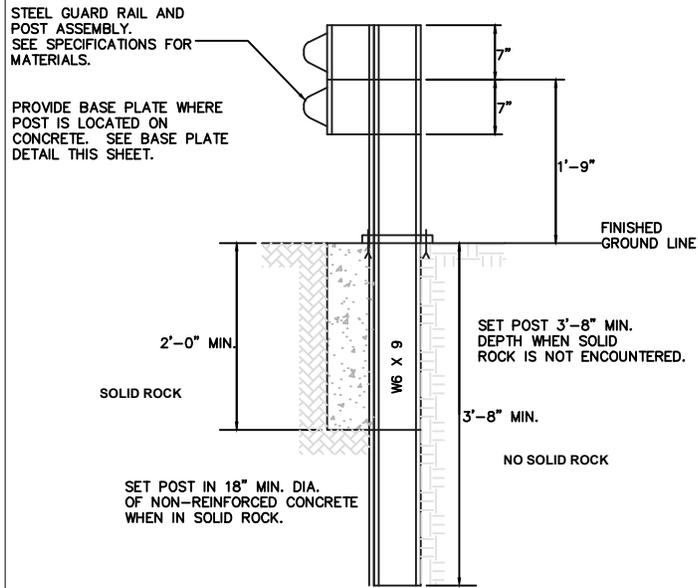
SECTION G
MISCELLANEOUS DETAILS

DATE: OCTOBER 2016
DESIGNED BY: WWP
DRAWN BY: WWP
CHECKED BY: KPP
APPROVED BY: BNB

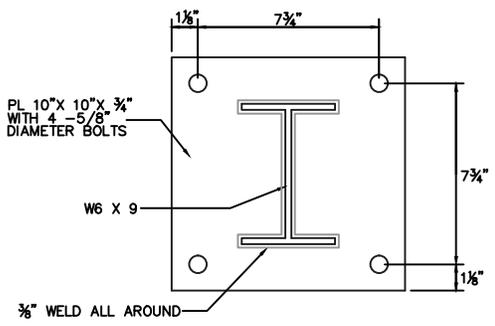
FILE NO. SD-G-3



SPRINGDALE
WE'RE MAKING IT HAPPEN



GUARD POST ASSEMBLY DETAIL
NOT TO SCALE



GUARD RAIL BASE PLATE DETAIL
NOT TO SCALE

**STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION**

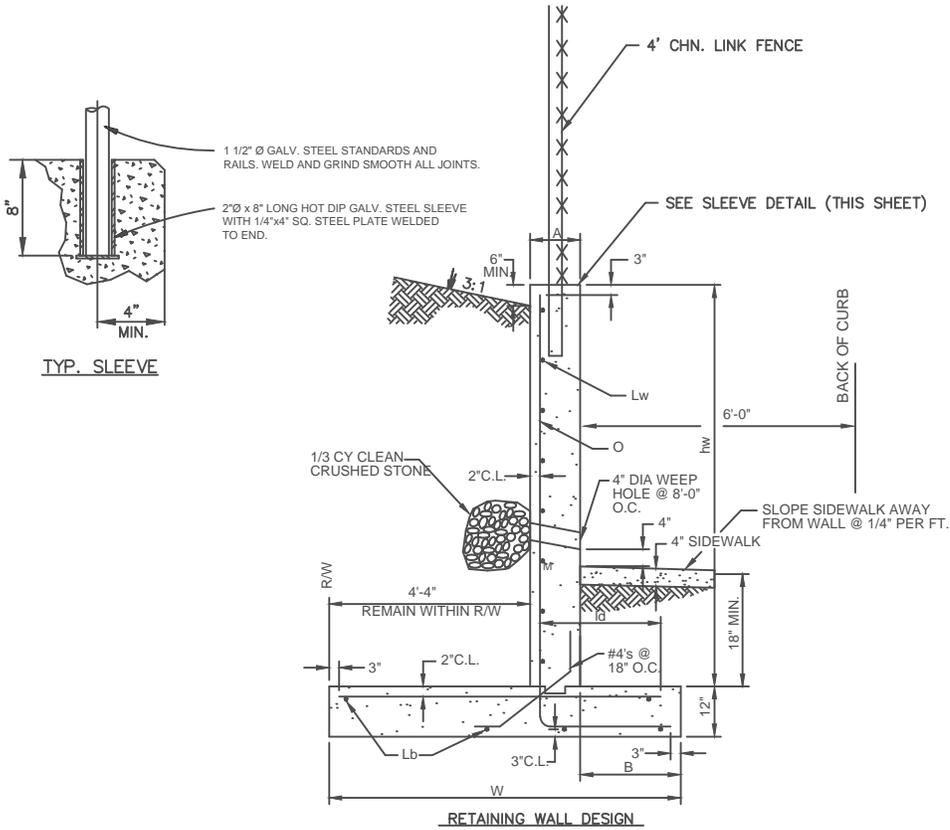
**SECTION G
MISCELLANEOUS DETAILS**

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-G-4



SPRINGDALE
WE'RE MAKING IT HAPPEN



RETAINING WALL DIMENSIONS						RETAINING WALL REINFORCING				
HT. (hw)	A	B	C	W	ld	"Lw"	"O"	"D"	"P"	"Lb"
4'	8"	6"	1'-10"	3'-0"	12"	#4's @12"O.C.	#4's @18"O.C.	#4's @18"O.C.	#4's @18"O.C.	4 - #4's
6'	8"	8"	2'-8"	4'-0"	12"	#4's @12"O.C.	#4's @16"O.C.	#4's @16"O.C.	#4's @16"O.C.	5 - #4's
8'	8"	1'-0"	3'-4"	5'-0"	12"	#5's @12"O.C.	#5's @18"O.C.	#4's @18"O.C.	#4's @18"O.C.	5 - #5's
10'	8"	1'-6"	4'-4"	6'-6"	12"	#5's @12"O.C.	#6's @12"O.C.	#4's @12"O.C.	#4's @12"O.C.	6 - #5's

STA. (RT.)	TOP CURB	TOP FOOTING	TOP WALL	WALL HT.	DIST. FROM B/C TO S. EDGE OF FOOTING
16+05 w/TURNBACK	1311.15	1309.65	1315.65	6'	9.34'
16+18	1310.43	1308.93	1317.93	9'	11.00'
16+25	1310.17	1308.67	1317.87	9.2'	11.00'
16+50	1309.09	1307.59	1317.59	10'	11.00'
17+00	1307.35	1305.85	1315.85	10'	11.00'
17+25	1306.81	1305.31	1312.31	7'	10.00'
17+40	1306.52	1305.02	1309.02	4'	8.5'
END					

STANDARD DETAILS FOR STREET & DRAINAGE CONSTRUCTION

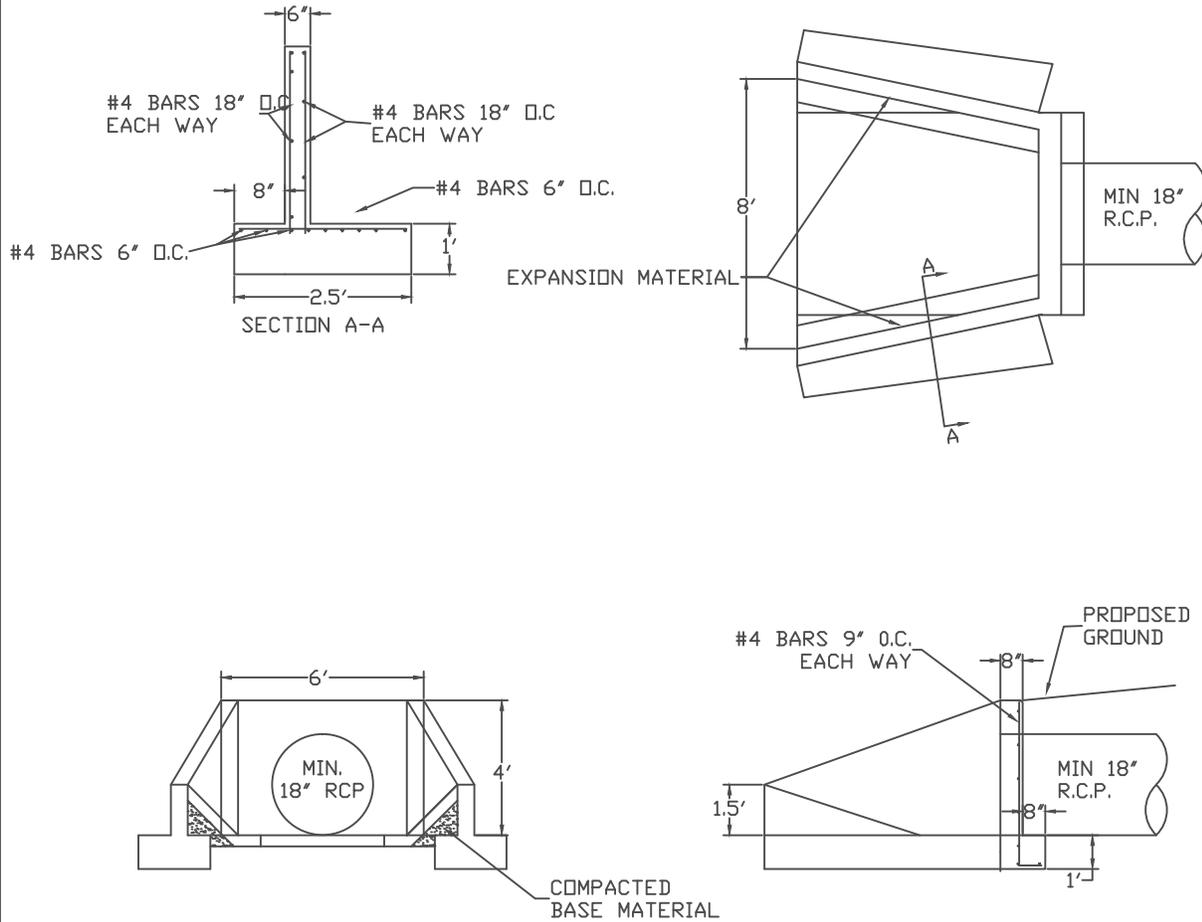
SECTION G MISCELLANEOUS DETAILS

DATE: OCTOBER 2016
 DESIGNED BY: WWP
 DRAWN BY: WWP
 CHECKED BY: KPP
 APPROVED BY: BNB

FILE NO. SD-G-5



SPRINGDALE
 WE'RE MAKING IT HAPPEN



TYPICAL HEADWALL DETAIL

N.T.S.

STANDARD DETAILS FOR
STREET & DRAINAGE
CONSTRUCTION

SECTION G
MISCELLANEOUS DETAILS

DATE: OCTOBER 2016

DESIGNED BY: KPP

DRAWN BY: KPP

CHECKED BY: BNB

APPROVED BY: BNB

FILE NO. SD-G-6



SPRINGDALE
WE'RE MAKING IT HAPPEN