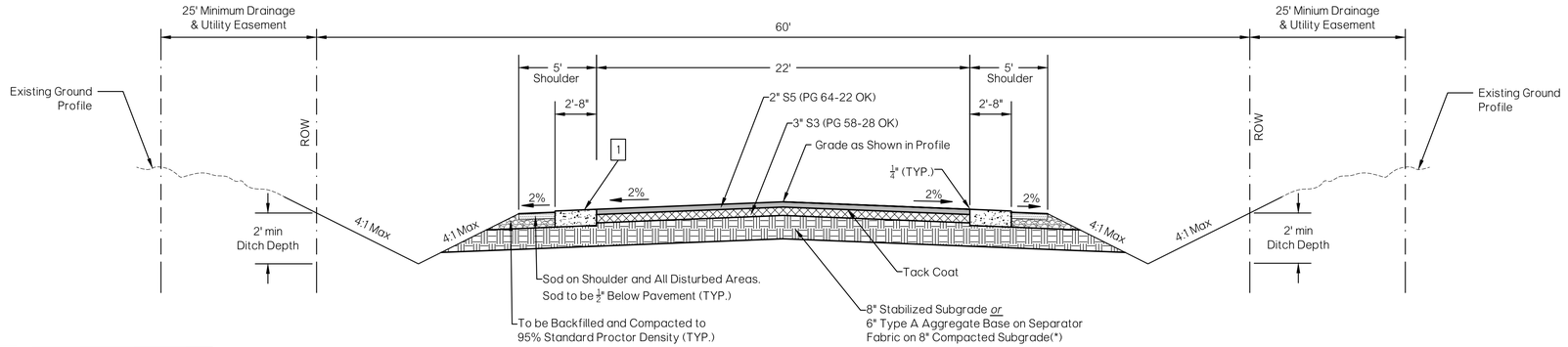


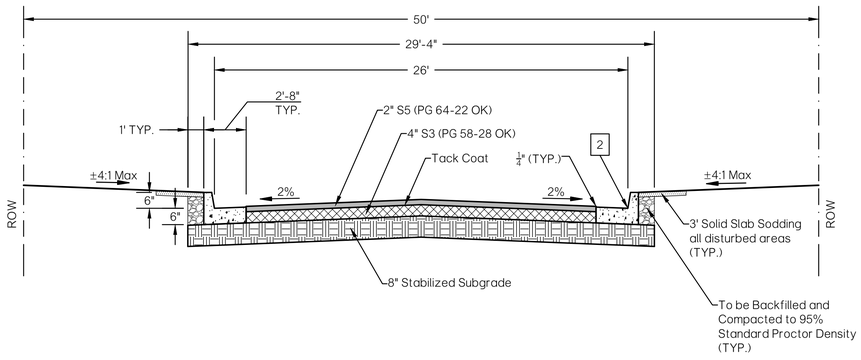

(*) Aggregate Base shall extend to edge of ditch and planed on Separator Fabric for Bases.

## TYPICAL SECTION
## LOCAL RESIDENTIAL RURAL ROADWAY
### R-A and R-A2 Zoning Districts

• 100 •

### LEGEND

- S5 (PG 64-22 OK)
- S3 (PG 58-28 OK)
- P.C. Concrete
- Stabilized Subgrade *or* Type A Aggregate Base
- Type A Aggregate Base (95% SPD Compaction)
- Compacted Subgrade
- Backfill
- Sodding
- Cement Treated Base *or* S3 (PG 58-28 OK)
- Leveling Course



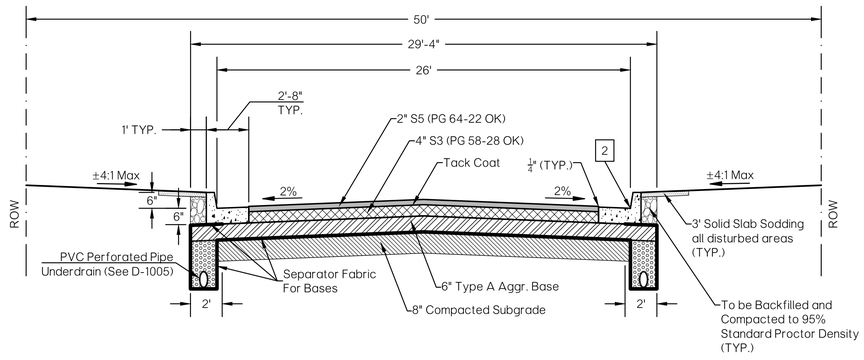

## TYPICAL SECTION
## 26' HOT MIX ASPHALT PAVING
### (STABILIZED SUBGRADE)
### LOCAL RESIDENTIAL

• 101 •

1 Ribbon Curb (See Detail D-200C)

2 Concrete Curb and Gutter Type 1, 2 or 3 (See Detail D-200C)

RESIDENTIAL ASPHALT NOTE:
1. S3 BASE COURSES SHALL USE BINDER GRADE PG 58-28 OK WITH A MAXIMUM OF 15% RECLAIMED ASPHALT PAVEMENT (RAP).
2. S5 SURFACE COURSE SHALL USE BINDER GRADE PG 64-22 OK WITH A VIRGIN MIX (NO RAP).
3. DESIGN MIXES, INCLUDING ACCEPTABLE TEST RESULTS, INDICATING A FINAL PERFORMANCE GRADE OF PG 64-22 OK MAY BE REQUIRED PRIOR TO APPROVAL OF A MIX FOR USE IN THE CITY OF OKLAHOMA CITY.




NOTE: Edge Drain Location to be Determined by the City Engineer. Refer to Pavement Edge Drain Sheet for Details. (See Detail Number D-1005.)

## TYPICAL SECTION
## 26' HOT MIX ASPHALT PAVING
### (AGGREGATE BASE)
### LOCAL RESIDENTIAL

• 102 •

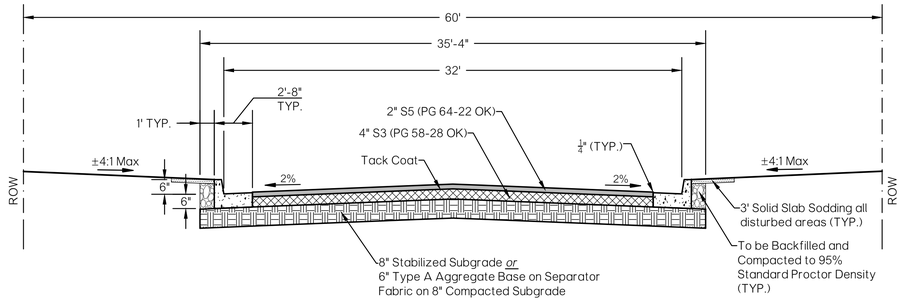
The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

# STANDARD TYPICAL SECTIONS ASPHALTIC PAVING

Detail Number

D-100A

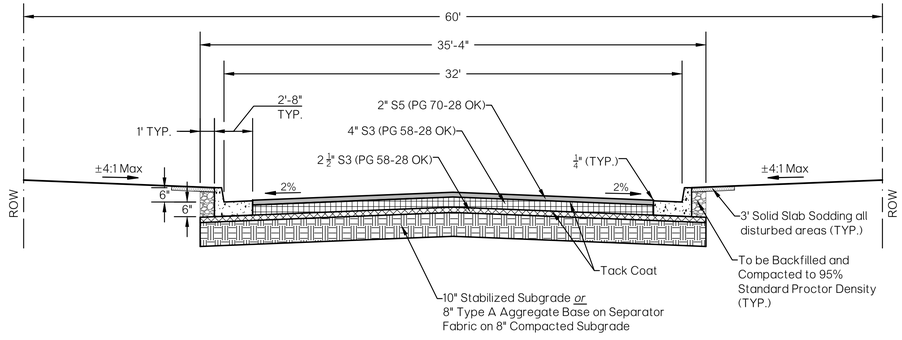



## TYPICAL SECTION
## 32' HOT MIX ASPHALT PAVING
## RESIDENTIAL COLLECTOR
● 110 ●

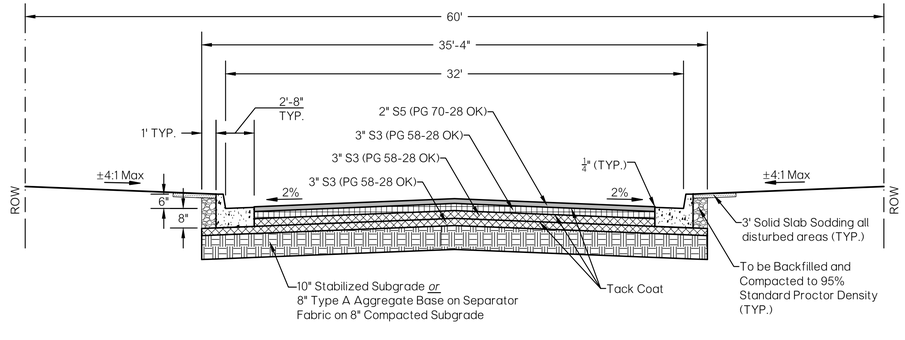
RESIDENTIAL TYPICAL NOTE:
1. S3 BASE COURSES AND S5 SURFACE COURSES SHALL USE BINDER GRADE PG 58-28 OK WITH A MAXIMUM OF 15% RECLAIMED ASPHALT PAVEMENT (RAP).
2. S5 SURFACE COURSE SHALL USE BINDER GRADE PG 64-22 OK WITH A VIRGIN MIX (NO RAP).
3. COURSE DESIGN MIXES, INCLUDING ACCEPTABLE TEST RESULTS, INDICATING A FINAL PERFORMANCE GRADE OF PG 64-22 OK MAY BE REQUIRED PRIOR TO APPROVAL OF A MIX FOR USE IN THE CITY OF OKLAHOMA CITY.

## LEGEND

- S5 (PG 70-28 OK) *or* S5 (PG 64-22 OK)
- S3 (PG 64-22 OK) *or* S3 (PG 58-28 OK)
- S3 (PG 58-28 OK)
- P.C. Concrete
- Stabilized Subgrade *or* Type A Aggregate Base
- Type A Aggregate Base (95% SPD Compaction)
- Compacted Subgrade
- Backfill
- Sodding
- Cement Treated Base *or* S3 (PG 58-28 OK)
- Leveling Course




## TYPICAL SECTION
## 32' HOT MIX ASPHALT PAVING
## COMMERCIAL
● 111 ●




## TYPICAL SECTION
## 32' HOT MIX ASPHALT PAVING
## INDUSTRIAL
● 112 ●

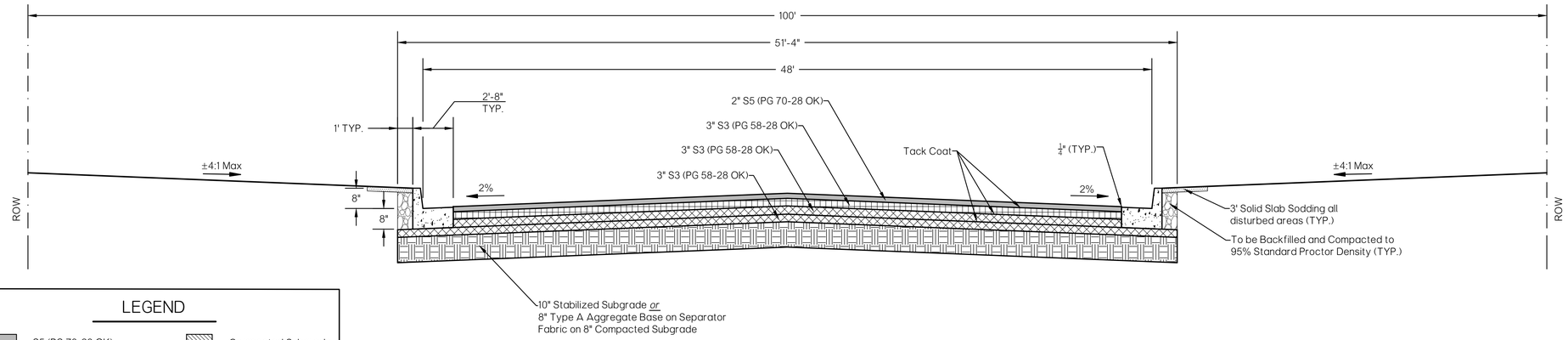
COMMERCIAL/INDUSTRIAL TYPICAL NOTE:
1. S3 BASE COURSES SHALL USE BINDER GRADE PG 58-28 OK WITH A MAXIMUM OF 15% RECLAIMED ASPHALT PAVEMENT (RAP).
2. S5 SURFACE COURSE SHALL USE BINDER GRADE PG 70-28 OK WITH A VIRGIN MIX (NO RAP).
3. COURSE DESIGN MIXES, INCLUDING ACCEPTABLE TEST RESULTS, INDICATING A FINAL PERFORMANCE GRADE OF PG 64-22 OK MAY BE REQUIRED PRIOR TO APPROVAL OF A MIX FOR USE IN THE CITY OF OKLAHOMA CITY.

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

# STANDARD TYPICAL SECTIONS ASPHALTIC PAVING

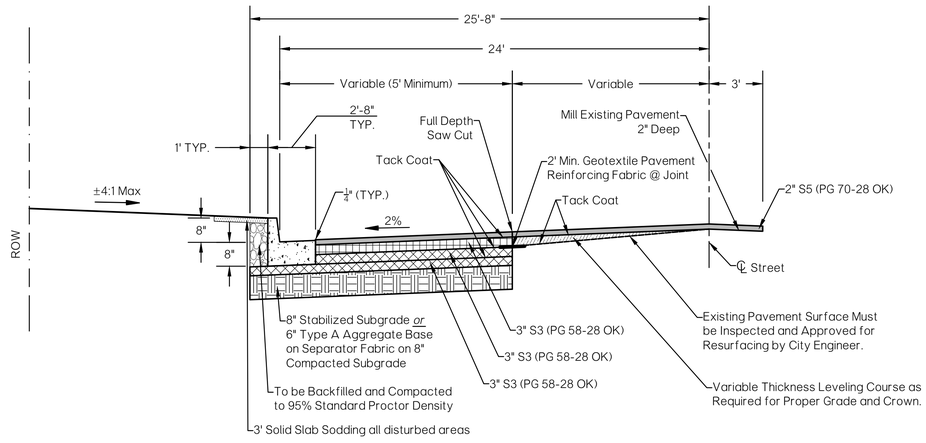
Detail Number
D-100B



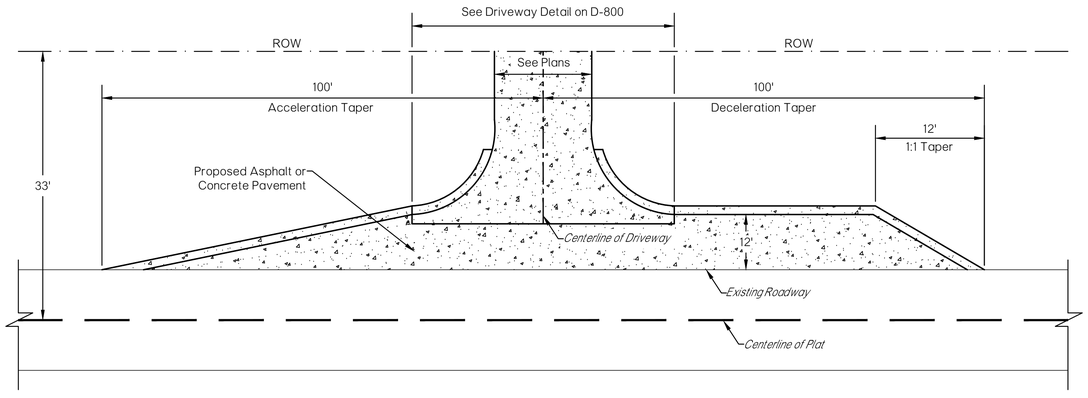

## LEGEND

- S5 (PG 70-28 OK)
- S3 (PG 64-22 OK) *or* S3 (PG 58-28 OK)
- S3 (PG 58-28 OK)
- P.C. Concrete
- Stabilized Subgrade *or* Type A Aggregate Base
- Type A Aggregate Base (95% SPD Compaction)
- Compacted Subgrade
- Backfill
- Sodding
- Cement Treated Base *or* S3 (PG 58-28 OK)
- Leveling Course

## TYPICAL SECTION
## 48' HOT MIX ASPHALT PAVING
## ARTERIAL
• 120 •




## TYPICAL SECTION
## VARIABLE WIDENING HOT MIX ASPHALT PAVING
• 130 •




## TYPICAL SECTION
## RURAL 2-LANE DRIVEWAY ACCESS
• 140 •

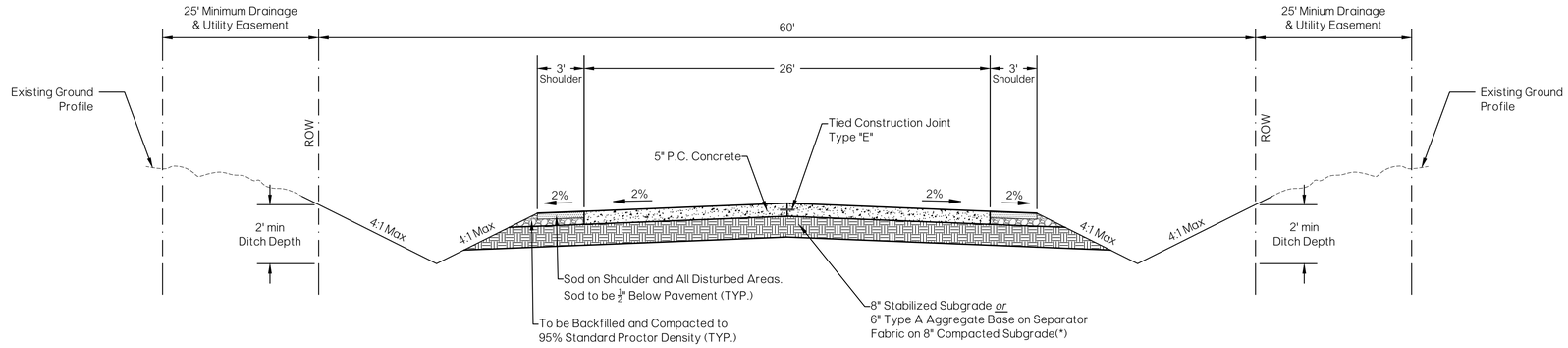
ARTERIAL/WIDENING TYPICAL NOTE:
1. S3 BASE COURSES SHALL USE BINDER GRADE PG 58-28 OK WITH A MAXIMUM OF 15% RECLAIMED ASPHALT PAVEMENT (RAP).
2. S5 SURFACE COURSE SHALL USE BINDER GRADE PG 70-28 OK WITH A VIRGIN MIX (NO RAP).
3. COURSE DESIGN MIXES, INCLUDING ACCEPTABLE TEST RESULTS, INDICATING A FINAL PERFORMANCE GRADE OF PG 64-22 OK MAY BE REQUIRED PRIOR TO APPROVAL OF A MIX FOR USE IN THE CITY OF OKLAHOMA CITY.

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

# STANDARD TYPICAL SECTIONS ASPHALTIC PAVING

Detail Number
D-100C

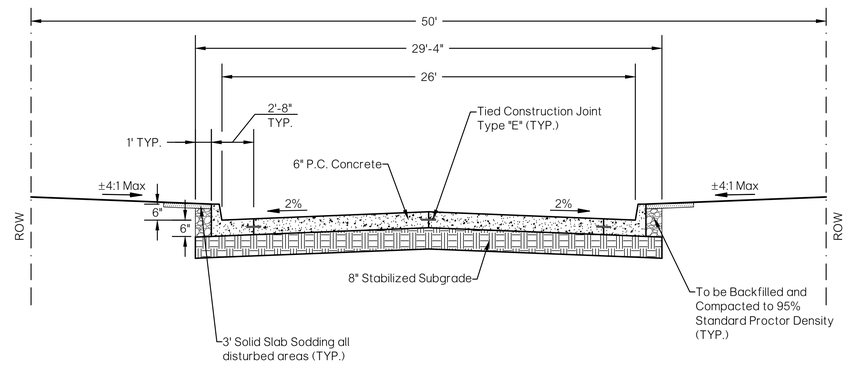



(*) Aggregate Base shall extend to edge of ditch and planed on Separator Fabric for Bases.

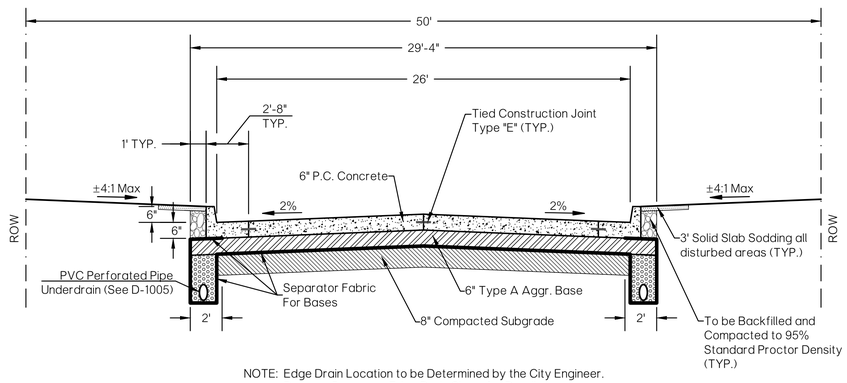
## LEGEND

- S5 (PG 70-28 OK) or S5 (PG 64-22 OK)
- S3 (PG 58-28 OK)
- P.C. Concrete
- Stabilized Subgrade or Type A Aggregate Base
- Type A Aggregate Base (95% SPD Compaction)
- Compacted Subgrade
- Backfill
- Sodding
- Cement Treated Base or S3 (PG 58-28 OK)
- Leveling Course

TYPICAL SECTION
LOCAL RESIDENTIAL RURAL ROADWAY
R-A and R-A2 Zoning Districts
• 200 •




TYPICAL SECTION
26' P.C. CONCRETE PAVING
(STABILIZED SUBGRADE)
LOCAL RESIDENTIAL
• 201 •




NOTE: Edge Drain Location to be Determined by the City Engineer.
Refer to Pavement Edge Drain Sheet for Details.
(See Detail Number D-1005.)

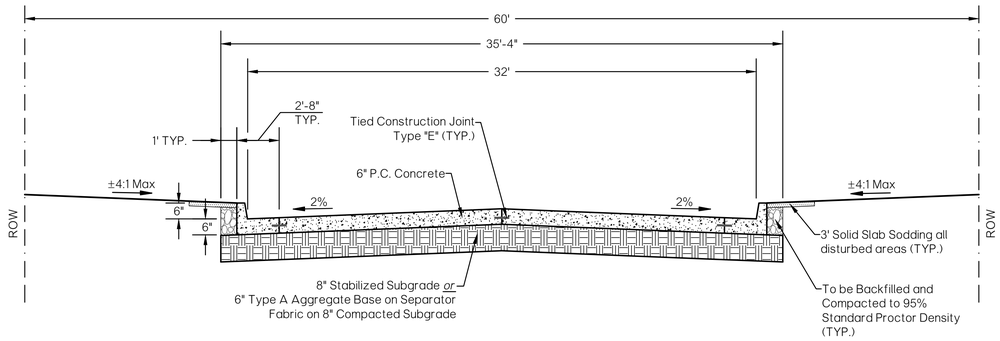
TYPICAL SECTION
26' P.C. CONCRETE PAVING
(AGGREGATE BASE)
LOCAL RESIDENTIAL
• 202 •

The City of Oklahoma City
Public Works Department
Engineering Division

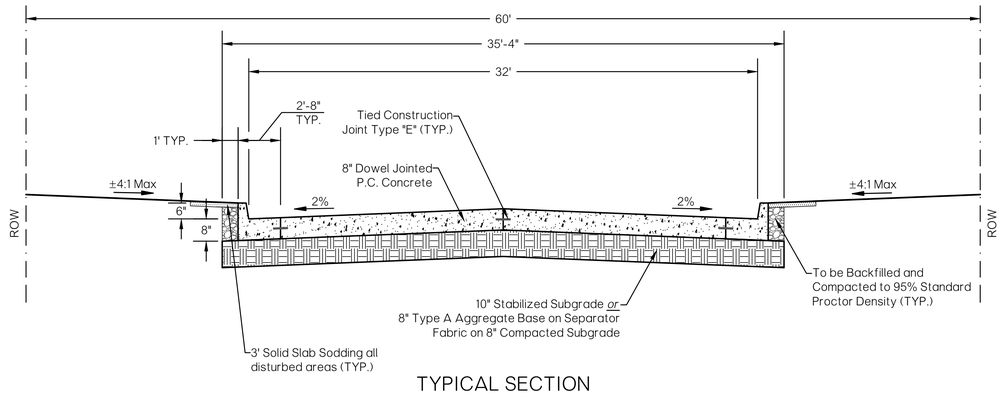
APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

# STANDARD TYPICAL SECTIONS P.C. CONCRETE PAVING

Detail Number
D-200A



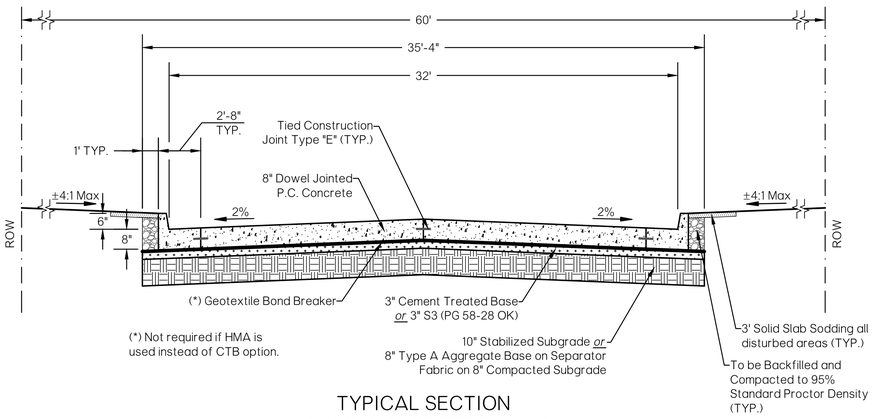

TYPICAL SECTION
32' P.C. CONCRETE PAVING
RESIDENTIAL COLLECTOR
• 210 •



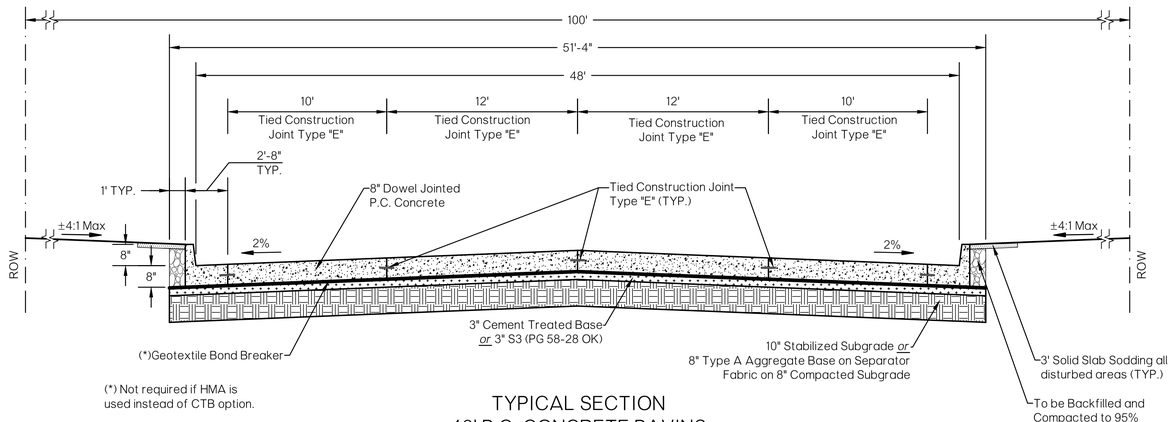

TYPICAL SECTION
32' P.C. CONCRETE PAVING
COMMERCIAL
• 211 •

LEGEND

- S5 (PG 70-28 OK) *or* S5 (PG 64-22 OK)
- S3 (PG 58-28 OK)
- P.C. Concrete
- Stabilized Subgrade *or* Type A Aggregate Base
- Type A Aggregate Base (95% SPD Compaction)
- Compacted Subgrade
- Backfill
- Sodding
- Cement Treated Base *or* S3 (PG 58-28 OK)
- Leveling Course




TYPICAL SECTION
32' P.C. CONCRETE PAVING
INDUSTRIAL
• 212 •




TYPICAL SECTION
48' P.C. CONCRETE PAVING
ARTERIAL
• 220 •

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER
DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

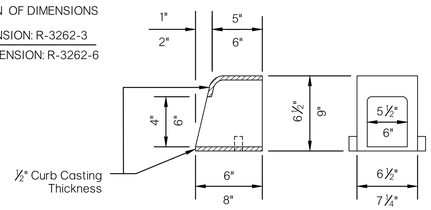
# STANDARD TYPICAL SECTIONS P.C. CONCRETE PAVING

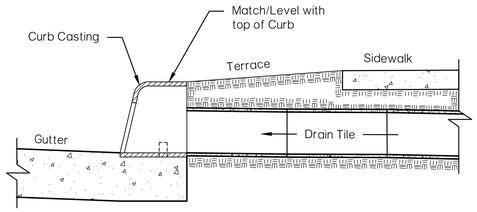
Detail Number
D-200B

EXPLANATION OF DIMENSIONS

TOP DIMENSION: R-3262-3

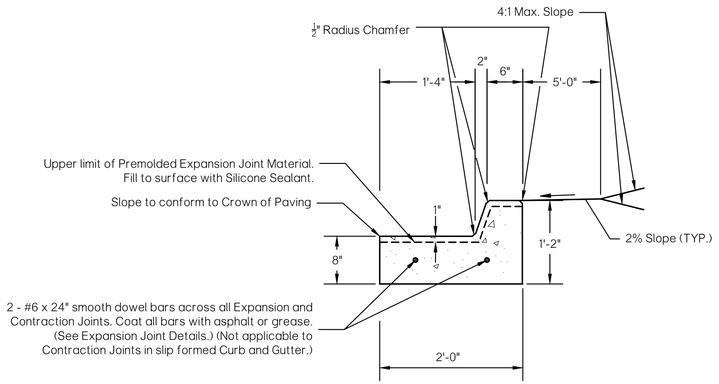
BOTTOM DIMENSION: R-3262-6



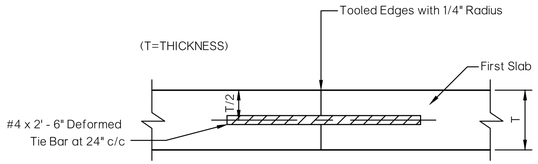

STORM WATER CURB OPENINGS

NEENAH R-3262-3 & R-3262-6



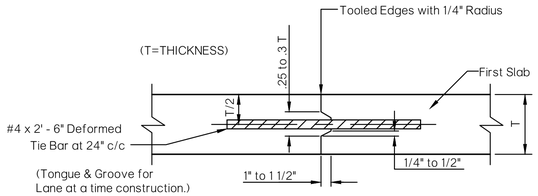

NOTE: Maximum spacing of 1/2" Expansion Joints to be 100' c/c with Contraction Joints 15' - 20' apart to match Driveway Returns. (Expansion Joint spacing not applicable to slip formed Curb and Gutter.)

CONCRETE CURB & GUTTER DETAIL FOR DOWNTOWN




STANDARD TIED CONSTRUCTION JOINT

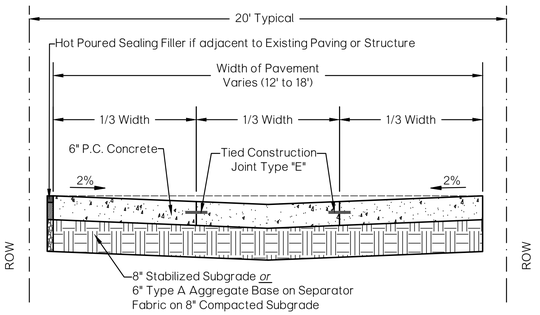
TYPE "E"




NOTE: Tongue & Groove shall be allowed, as approved by the City Engineer, when traffic is to be maintained during construction.

ALTERNATE TIED CONSTRUCTION JOINT

TYPE "E"



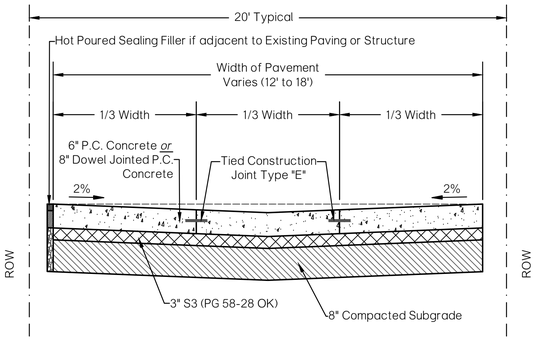

TYPICAL SECTION

P.C. CONCRETE ALLEY PAVING

LOCAL RESIDENTIAL

• 230 •

NOTE: Transverse Joints at 10' MAX.



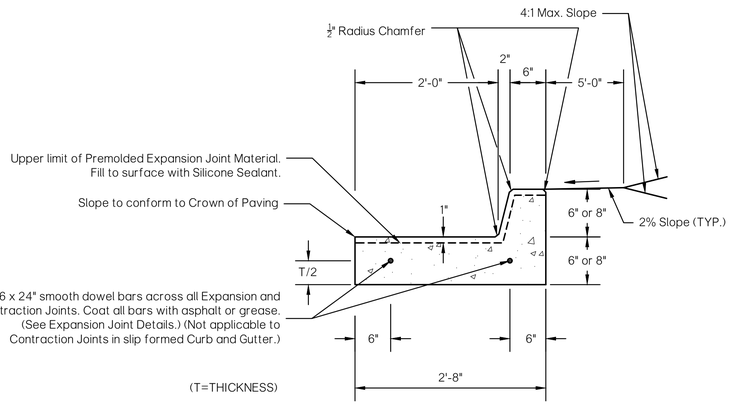

TYPICAL SECTION

P.C. CONCRETE ALLEY PAVING

COMMERCIAL/INDUSTRIAL

• 231 •

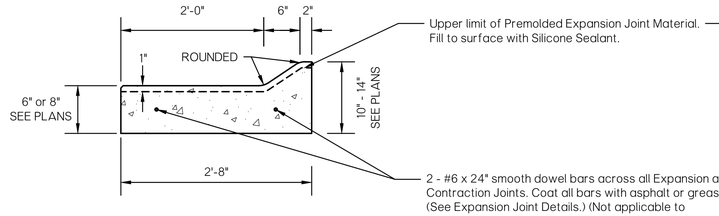
NOTE: Transverse Joints at 10' MAX.




NOTE: Maximum spacing of 1/2" Expansion Joints to be 100' c/c with Contraction Joints 15' - 20' apart to match Driveway Returns. (Expansion Joint spacing not applicable to slip formed Curb and Gutter.)

BARRIER CURB & GUTTER DETAIL

(TYPE 1)

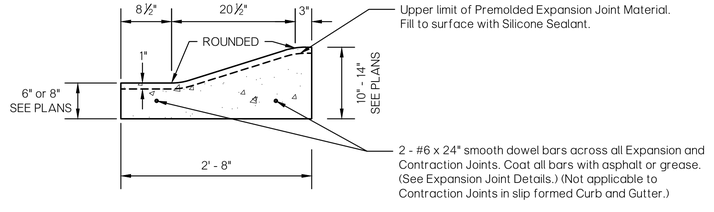



All Exposed Edges to Have 3/8" Rounded Finish

MOUNTABLE CURB & GUTTER DETAIL

(TYPE 2)

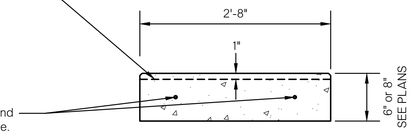
* For use in residential street only, unless otherwise approved by City Engineer.




SPECIAL MOUNTABLE CURB & GUTTER DETAIL

(TYPE 3)

* For use in residential street only, unless otherwise approved by City Engineer.




All Exposed Edges to Have 3/8" Rounded Finish

RIBBON CURB DETAIL

(TYPE 4)

* For use in residential street only.

CURBS FOR P.C. CONCRETE PAVEMENT NOTE:

1. #4 Tiebars 2'-0" long are required at 24" centers if Curb & Gutter not cast integrally with the P.C. Concrete street pavement. Longitudinal Construction Joints on Local and Collector streets may, with the approval of the City Engineer, be Butt Type Joints with Tiebars.

The City of Oklahoma City

Public Works Department

Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER DATE: 09/12/2023

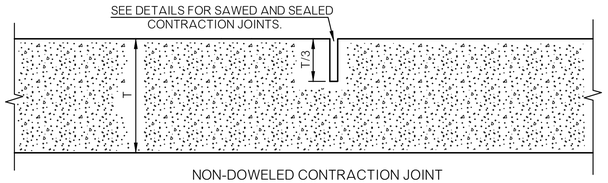
DRAWN: OKC-PW-SRB

DATE: 3/9/2023

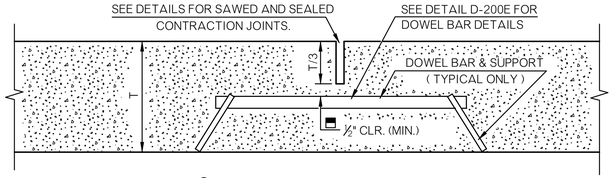
# P.C. CONCRETE PAVING SPECIAL DETAILS

Detail Number

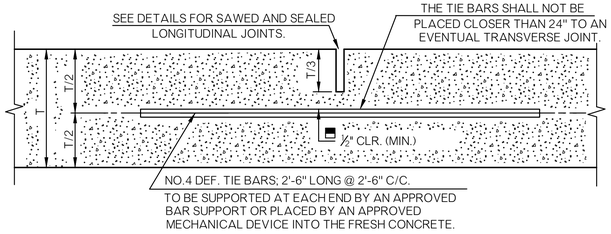
D-200C



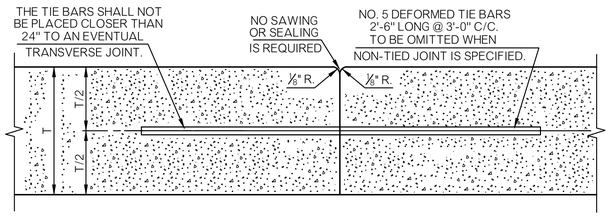

NON-DOWELED CONTRACTION JOINT



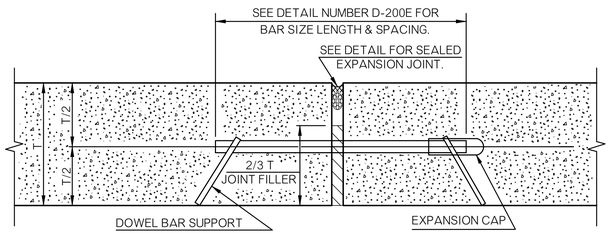

◒ DOWELED CONTRACTION JOINT




LONGITUDINAL JOINT

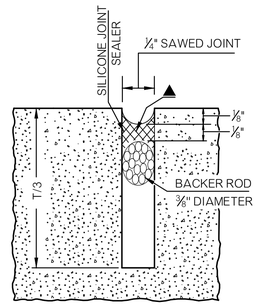



TIED BUTT JOINT
LONGITUDINAL CONSTRUCTION JOINT

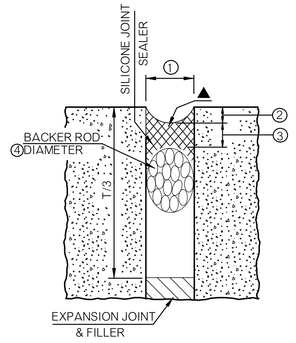



EXPANSION JOINT / ISOLATION JOINT ■

■ OMIT DOWEL BARS, CAPS & SUPPORTS FOR ISOLATION JOINTS SEE STANDARD DRAWING NUMBER D-200E, LOAD TRANSFER UNITS, FOR DETAILS OF ALTERNATE TYPES OF DOWEL BAR SUPPORTS.




ALTERNATE DETAILS
SAWED AND SEALED CONTRACTION, AND LONGITUDINAL JOINTS

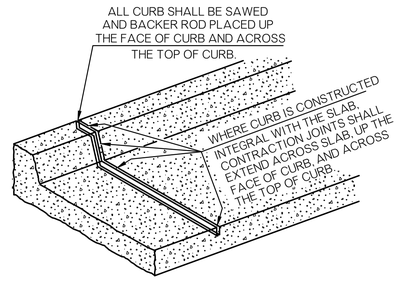



SEALED EXPANSION JOINT

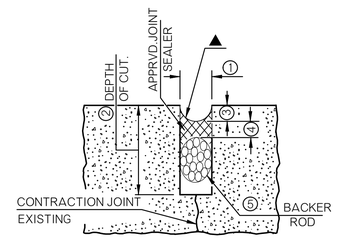
| EXPANSION JOINT / ISOLATION JOINT TREATMENT TABLE | | | |
|---|---|---|---|
| JOINT WIDTH ① | SEALANT RECESS DEPTH ② | SILICONE SEALANT THICKNESS ③ | BACKER ROD DIAMETER ④ |
| INCHES | INCHES | INCHES | INCHES |
| ½" | ¼" | ¼" | ⅝" |
| ¾" | ¼" | ⅜" | ⅞" |
| 1" | ⅜" | ½" | 1¼" |
| 1½" | ½" | ½" | 2" |
| 2" | ½" | ¾" | 2½" |

DETAILS FOR SEALED
EXPANSION / ISOLATION JOINT

EXPANSION OR ISOLATION JOINT WIDTH SHALL BE 1/2", UNLESS OTHERWISE SPECIFIED ON THE PLANS. TABLE VALUES, AS SHOWN THIS TABLE , SHALL BE USED IN THOSE SPECIFIED CASES.




CONTRACTION JOINT WITH INTEGRAL CURB




JOINT REHABILITATION DETAILS

| JOINT REHABILITATION TREATMENT TABLE | | | | |
|---|---|---|---|---|
| JOINT WIDTH ① | DEPTH OF CUT ② | SEALANT RECESS DEPTH ③ | SEALANT THICKNESS ④ | BACKER ROD DIAMETER ⑤ |
| INCHES | INCHES | INCHES | INCHES | INCHES |
| ¼" | 1⅛" | ⅛" (MIN.) | ¼" | ⅜" |
| ⅜" | 1¼" | ⅛" (MIN.) | ⅜" | ½" |
| ½" | 1¾" | ⅛" (MIN.) | ½" | ⅝" |
| ¾" | 1¾" | ⅛" (MIN.) | ¾" | ⅞" |
| ⅞" | 1¾" | ⅛" (MIN.) | ⅞" | 1" |
| 1" | 2" | — | — | 1⅛" |
| OVER 1" | OVER 2" | — | — | 1¼" + |

JOINT REHABILITATION - POLYMER SEALANT

| JOINT REHABILITATION TREATMENT TABLE | | | | |
|---|---|---|---|---|
| JOINT WIDTH ① | DEPTH OF CUT ② | SEALANT RECESS DEPTH ③ | SILICONE SEALANT THICKNESS ④ | BACKER ROD DIAMETER ⑤ |
| INCHES | INCHES | INCHES | INCHES | INCHES |
| ⅜" | 1¼" | ¼" | 3⁄16" | ½" |
| ½" | 1¾" | ¼" | ¼" | ⅝" |
| ¾" | 1¾" | ¼" | ⅜" | ⅞" |
| ⅞" | 1¾" | ½" | 7⁄16" | 1" |
| 1" | 2" | ½" | ½" | 1⅛" |
| OVER 1" | OVER 2" | ½" | ½" | 1¼" |

JOINT REHABILTIATION - SILICONE SEALANT

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE OKC STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS.
2. ONLY SILICONE SEALANT MEETING REQUIREMENTS OF THE OKC STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL BE ACCEPTABLE FOR USE.
3. ALL JOINTS SHALL BE CLEANED IN ACCORDANCE WITH THE OKC STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS. WATER FLUSHING AND AIR CLEANING OF JOINT SHALL BE IN ONLY ONE DIRECTION-FORWARD. SANDBLASTING SHALL BE PERFORMED IN TWO PASSES, ONE FOR EACH FACE OF THE JOINT.
4. THE SHAPE FACTOR COMBINED WITH JOINT CLEANNESS IS THE CRITICAL COMBINATION NECESSARY TO GUARANTEE DESIRED BONDING AND FUNCTION OF SEALED JOINTS. NO TOLERANCE EXCEPT THOSE SHOWN HERE WILL BE ALLOWED.

▲ 5. THE JOINT SHAPE FACTOR IS DEFINED AS THE FINAL PRESSED SHAPE OF THE SILICONE MATERIAL. THE TOOLING OPERATION WILL FIRMLY PRESS THE FRESHLY APPLIED MATERIAL INTIMATELY AGAINST THE CUT SIDES OF THE RECESS AND THE BACKER ROD SURFACES. THE ROUNDED SHAPE ON TOP AND BOTTOM OF THE SILICONE ALLOWS THE SEALANT TO PROPERLY FLEX BUT MAINTAIN ADHERANCE TO THE PAVING.

◒ 6. ON JOINTED PORTLAND CEMENT CONCRETE PAVEMENTS, DOWELLED CONTRACTION JOINTS SHALL BE USED ON DRIVING LANES ONLY. CONCRETE SHOULDERS SHALL NOT BE DOWELLED UNLESS SPECIFIED ON THE PLANS.

7. LONGITUDINAL JOINTS BETWEEN PAVEMENT AND TIED CONCRETE SHOULDERS SHALL NOT BE SAWED OR SEALED UNLESS OTHERWISE SHOWN ON THE PLANS.

⬒ 8. ON ALL SAWED JOINTS, THE KERF DEPTH SHALL CLEAR DOWEL BARS, TIE BARS AND/OR REINFORCING STEEL BY A MINIMUM OF 1/2".

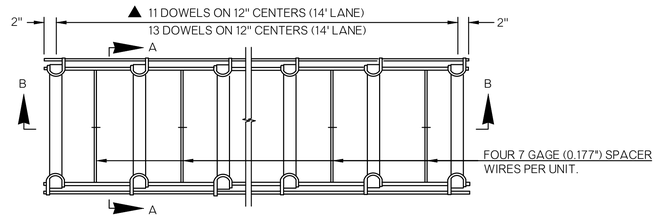
9. CONTRACTION JOINTS IN JOINTED P. C. PAVEMENT SHALL BE AT APPROXIMATELY 15'-0" CENTERS, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

The City of Oklahoma City
Public Works Department
Engineering Division

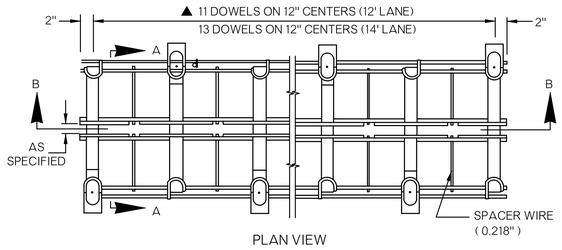
APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER
DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

# LONGITUDINAL, EXPANSION AND CONTRACTION JOINTS DETAILS

Detail Number
D-200D



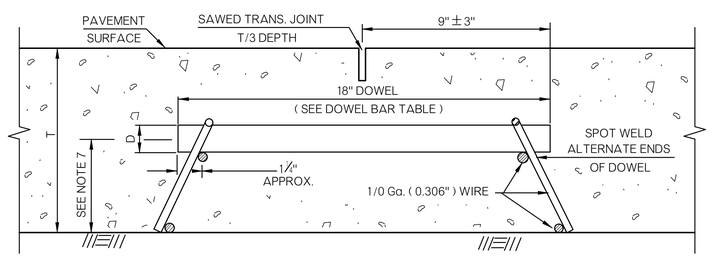

PLAN VIEW



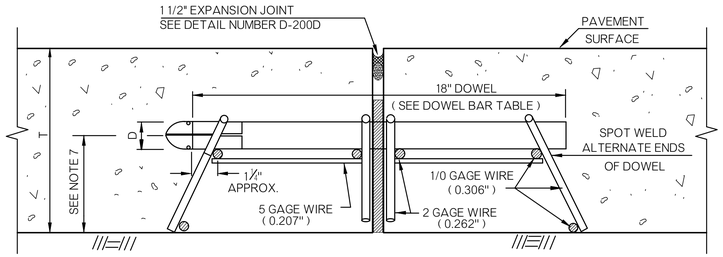

PLAN VIEW

| DOWEL BARS | | | |
|---|---|---|---|
| ▲ SPACING & SIZE DATA | | | |
| ( T ) SLAB DEPTH | ( D ) DOWEL DIA. | TOTAL DOWEL LENGTH | C/C DOWEL SPACING |
| 7"-10" | 1¼" | 18" | 12" |
| 10 1/2"& UP | 1¼" | 18" | 12" |

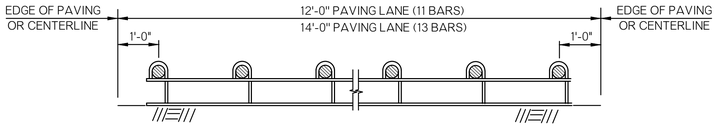
DOWEL DIAMETER WILL BE DETERMINED BY THE SLAB DEPTH ( T ) OR THE NOMINAL DEPTH WHEN SLAB DEPTH VARIES. WHEN NOMINAL DEPTH VALUE IS TO BE USED, THE CALCULATED NOMINAL DEPTH WILL BE SHOWN ON THE PLANS.



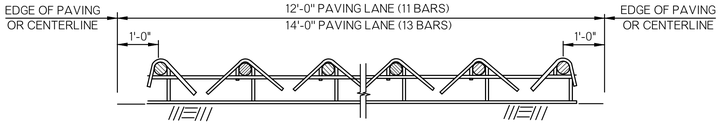

SECTION A-A



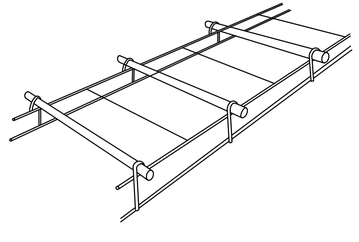

SECTION A-A



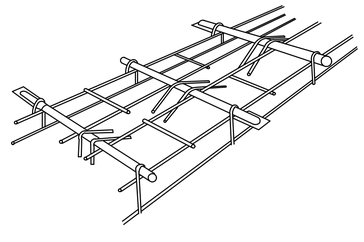

SECTION B-B




SECTION B-B



WELDED CONTRACTION JOINT ASSEMBLY



WELDED EXPANSION JOINT ASSEMBLY

## GENERAL NOTES

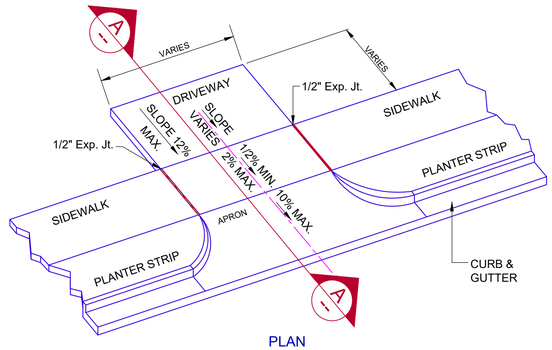
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE OKC STANDARD SPECIFICIATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS.
2. ANY DEVICE USED FOR SUPPORTING DOWELS SHALL HAVE SUFFICIENT RIGIDITY AND BE HELD IN PLACE DURING CONCRETE PLACEMENT SO THAT DOWELS WILL BE IN SPECIFIED POSITION IN THE FINISHED PAVEMENT. ANY DEVICE NOT PRODUCING THE SPECIFIED RESULTS SHALL BE REJECTED.
3. PRODUCER AND CONTRACTOR SHALL AVOID PATENT INFRINGEMENT OF THE BASKET AND SHALL SAVE THE CITY HARMLESS IN THE USE OF ANY BASKET.
4. THE CONTRACTOR MAY SELECT THE TYPE OF BASKET TO BE USED. AFTER THE SELECTION IS MADE, THE SAME TYPE BASKET SHALL BE USED THROUGHOUT THE PROJECT, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
5. COLD-DRAWN STEEL WIRE, USED FOR DOWEL BASKETS, SHALL BE ACCEPTED BY VISUAL FIELD INSPECTION, AS PROVIDING SUFFICIENT DOWEL BAR SUPPORT DURING PAVING PROCESS.
6. ▲ DOWEL BARS SHALL BE GRADE 60 PLAIN BARS. DOWEL BARS SHALL BE CENTERED ON THE BASKET REGARDLESS OF THE WIDTH OF THE BASKET OR THE LENGTH OF THE DOWEL BAR.
7. THE HEIGHT OF THE LOAD TRANSFER UNIT ( MEASURED TO THE CENTER OF THE DOWEL BAR FROM THE PAVEMENT SURFACE) SHALL BE 1/2 THE THICKNESS OF THE PAVEMENT, PLUS OR MINUS 1/2 THE DIAMETER OF DOWEL BAR OF THE UNIT.
8. DOWEL BARS SHALL HAVE A SHOP APPLIED EPOXY COATING OVER THEIR ENTIRE LENGTH ( ENDS EXCEPTED). ADDITIONALLY, DOWELS SHALL BE COMPLETELY COATED WITH A FORM RELEASE AGENT ( OR APPROVED EQUIVALENT BOND BREAKER ) APPLIED IN THE FIELD, IMMEDIATELY PRIOR TO PAVING. THE FORM RELEASE AGENT SHALL NOT BE ALLOWED TO EVAPORATE FROM THE BARS PRIOR TO PAVING.
9. FOR EXPANSION JOINTS, THE DOWEL BARS SHALL HAVE EXPANSION CAPS WITH A MINIMUM 1" AND A MAXIMUM 2" AIR SPACE IN THE END OF THE EXPANSION CAPS ( EXPANSION JOINT ASSEMBLIES ).
10. THE CONTRACTOR SHALL DEMONSTRATE TO THE CITY ENGINEER A STAKING PATTERN THAT SHALL SECURE ALL DOWEL BASKETS SUCH THAT THE FINAL DOWEL POSITION IS WITHIN SPECIFICATION LIMITS.
11. FOR EXPANSION JOINTS, IN ADDITION TO THE SUPPORTS INDICATED, THE CONTRACTOR SHALL PROVIDE SUITABLE INSTALLING DEVICES AND SUCH ADDITIONAL STAKES AS MAY BE REQUIRED TO HOLD THE JOINT FILLER VERTICAL AND SECURELY IN LINE AND POSITION. THE CONTRACTOR WILL ALSO BE REQUIRED TO SATISFACTORILY FORM THE UPPER PORTION OF THE JOINT FOR RECEIVING THE SEAL. SEE ATTACHED DETAIL NUMBER D-200D.

The City of Oklahoma City
Public Works Department
Engineering Division

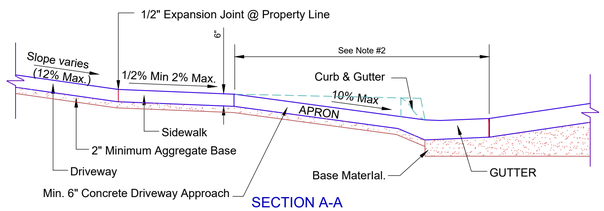
APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: OKC-PW-SRB
DATE: 3/9/2023

# LOAD TRANSFER UNITS FOR CONCRETE PAVEMENT JOINTS DETAILS

Detail Number
D-200E




PLAN



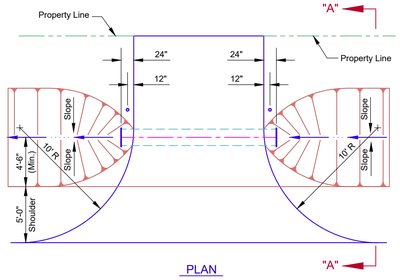

SECTION A-A

NOTES:

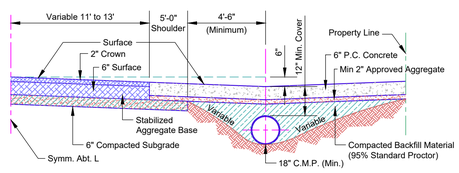
1. A 5' - 0" minimum radius is approved for one & two family residences not abutting a limited access or major street. All other Driveways will have a 10' 0 " minimum radius.
2. The Driveway Contractor shall saw cut & remove the complete Curb and Gutter section. Saw cuts shall be 2" or 1/3 the depth of the gutter, whichever is greater. Saw cuts shall include the top & face of curb as well as the gutter. Saw cuts shall be made prior to the removal of concrete.
3. If a gutter holds water prior to any construction by driveway Contractor, he should notify the City Engineer of the situation before doing any work. The completed driveway work will not be accepted if the gutter holds water due to poor construction by the Contractor.
4. It is recognized that this driveway detail will not cover every possible situation encountered in construction. Additional expansion joints will be required as needed.
5. Clean and seal all joints and saw cuts in accordance with standard specifications.
6. Longitudinal Joint required for drives 16' wide & greater. Saw cut 2" deep and fill with silicone sealant. Transverse Joints Required at 15' Maximum Spacing.
7. Do not turn radius in front of adjacent property without written permission from adjacent property owner.
8. Commercial an industrial driveway approaches may be thicker or approved by the City Engineer.

DRIVEWAY DETAILS

•310•



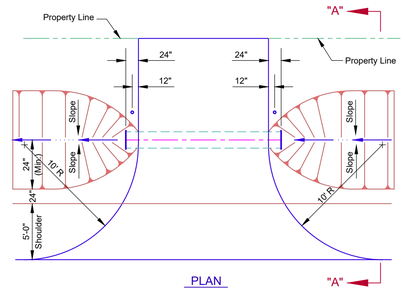

PLAN



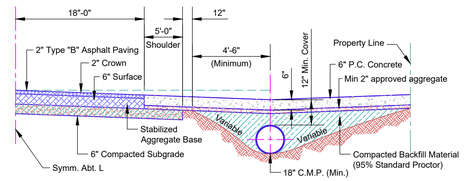

SECTION "A - A"

DRIVEWAY DETAILS FOR RURAL ESTATES DEVELOPMENT

• 320 •




PLAN

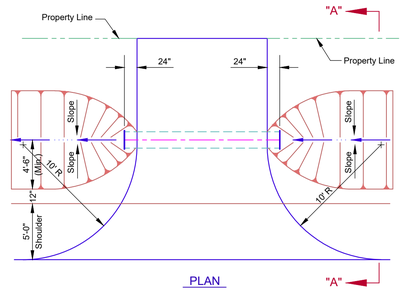



SECTION "A - A"

DRIVEWAY DETAILS FOR AGRICUTURAL ESTATES

R -1 ZONING

• 330 •

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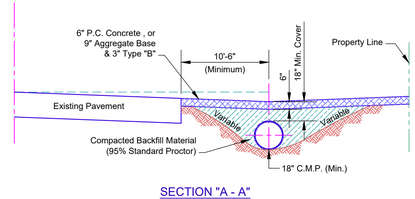


SECTION "A - A"

TO BE REMOVED IMMEADENTLY UPON COMPLETION OF DRILLING OPERATIONS

TEMPORARY DRIVEWAY DETAILS

FOR OIL FIELD DEVELOPMENT ACCESS

• 340 •

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY:
ERIC J. WENGER, P.E.
CITY ENGINEER

DATE: 09-12-23

DRAWN: VSC

DATE: 02-05-13

# STANDARD TYPICAL SECTIONS DRIVEWAY DETAILS

Drawing Number

D-300

REVISION 3-2017

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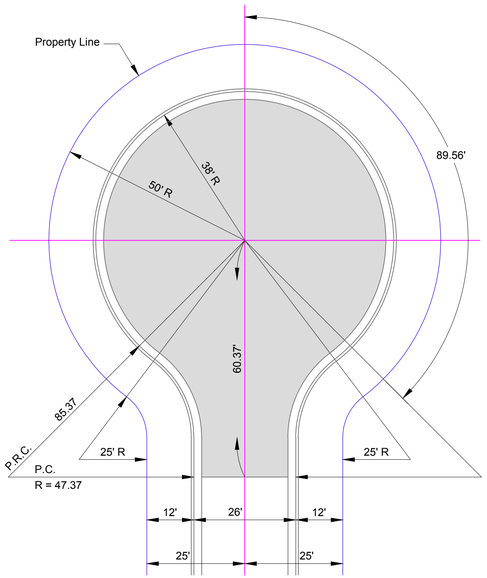
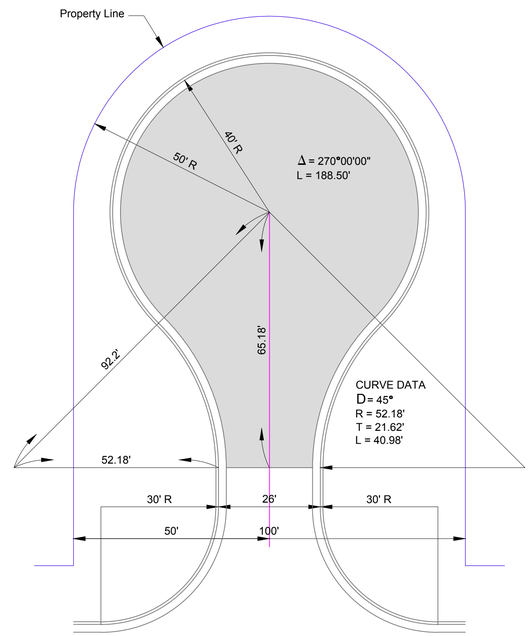



**MATERIAL IN SAC BEYOND P.C.**
531.6 S.Y. ASPHALTIC CONCRETE
587.9 S.Y. P.C. CONCRETE
646.9 S.Y BASE (10" Back of Curb)
253.52 l.f. CURB

**CURVE DATA**
Δ = 45°
R = 47.37'
T = 19.62'
L = 37.20'

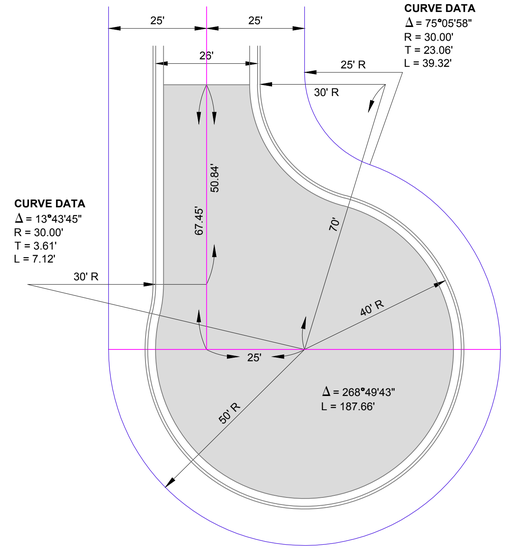
STANDARD CUL-DE-SAC -- 38' R




P.C. CONCRETE
270.46 L.F. CONCRETE
653.32 S.Y. P.C. CONCRETE
702.10 S.Y. BASE (Includes to 10" Back of Curb)

ASPHALTIC CONCRETE
270.46 L.F. CONCRETE & GUTTER
593.92 S.Y. ASPHALTIC CONCRETE
702.10 S.Y. BASE (Includes to 10" Back of Curb)

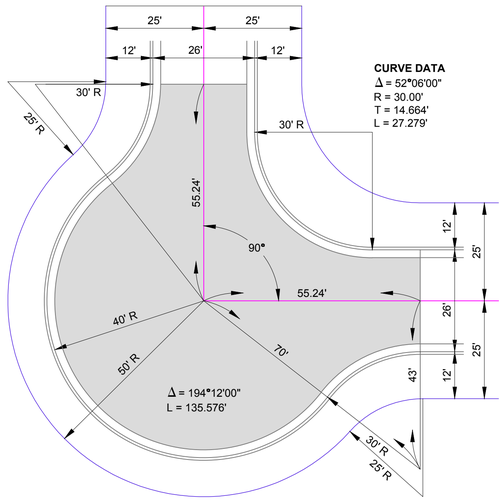
STANDARD CUL-DE-SAC -- 40' R




**P.C. CONCRETE**
289.94 L.F. CONCRETE
684.40 S.Y. P.C. CONCRETE
735.75 S.Y. BASE (Includes to 10" Back of Curb)

**ASPHALTIC CONCRETE**
289.94 L.F. CONCRETE & GUTTER
621.77 S.Y. ASPHALTIC CONCRETE
735.75 S.Y. BASE (Includes to 10" Back of Curb)

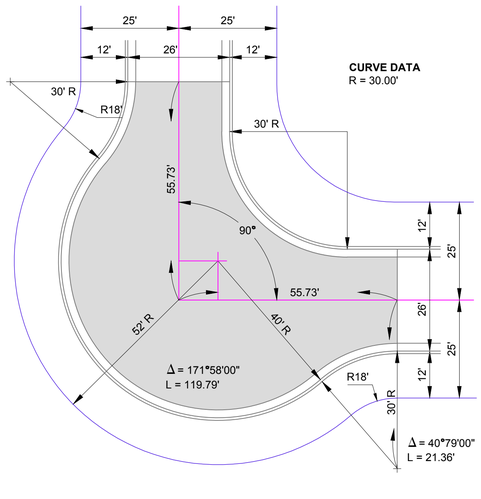
OFF-SET CUL-DE-SAC




**P.C. CONCRETE**
261.74 L.F. CONCRETE
678.56 S.Y. P.C. CONCRETE
683.10 S.Y. BASE (Includes to 10" Back of Curb)

**ASPHALTIC CONCRETE**
261.74 L.F. CONCRETE & GUTTER
578.40 S.Y. ASPHALTIC CONCRETE
683.10 S.Y. BASE (Includes to 10" Back of Curb)

90° CUL-DE-SAC

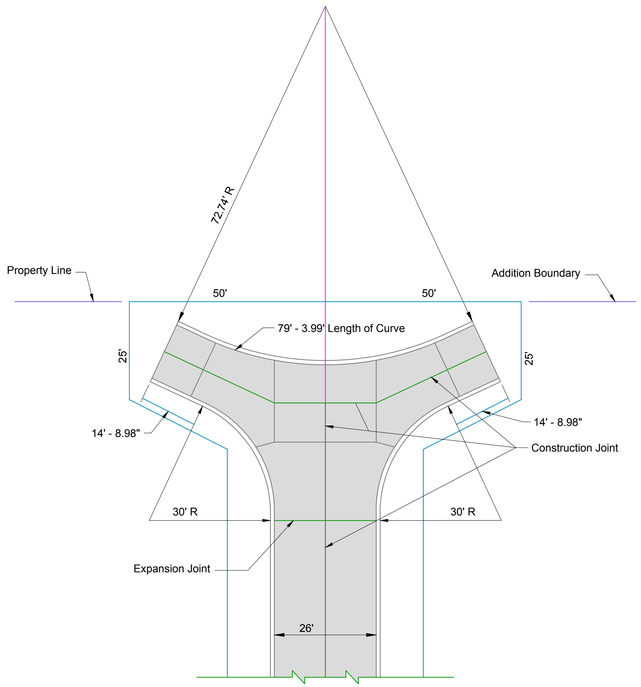



**P.C. CONCRETE**

**ASPHALTIC CONCRETE**
234.97 L.F. CONCRETE & GUTTER

27.64 LF curb shorter w/ 10' offset.
Approx. 91 sy smaller area.

90° CUL-DE-SAC




STANDARD "T" TURN AROUND

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY:
ERIC J. WENGER, P.E.
CITY ENGINEER
DATE: 02-05-13

DRAWN: VSC

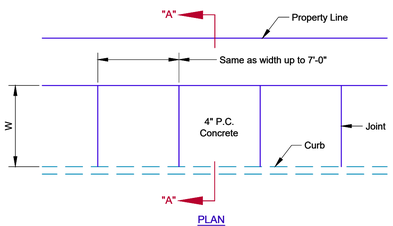
DATE: 02-05-13

# STANDARD DETAILS FOR CUL-DE-SACS

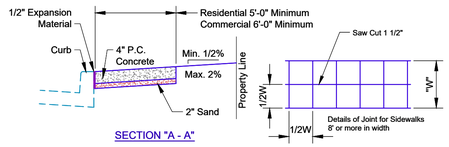
Drawing Number
D-400

D:\okc...okc:PW-Section:CITY:ACAD-STDS D-400 VSC 02-05-13

## DETAILS FOR SIDEWALK
LOCATED AT CURB




PLAN

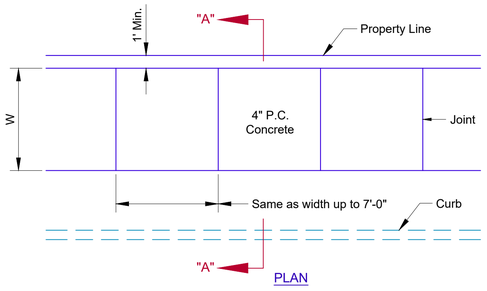



SECTION "A - A"

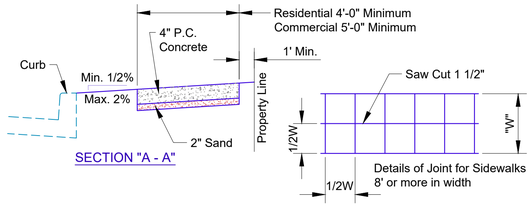
NOTES:

1. 1/2" x 4" premolded expansion material around Power Poles or other structures in walk with at least 36" of clear travel space.
2. Expansion Joints maximum distance = 100', use 1/2" x 4" premolded expansion material.
3. Contraction Joints maximum distance = 7', saw cut 1 1/2" deep and fill with sealant.
4. Saw cut joints within 24 hours.
5. Use 1/2" x 4" premolded expansion joint at curb and at adjacent Property Lines.
6. All joints to be sealed. Premolded expansion material to be removed to a depth of 1/2" prior to applying sealant.

## DETAIL FOR SIDEWALK
LOCATED AWAY FOM CURB



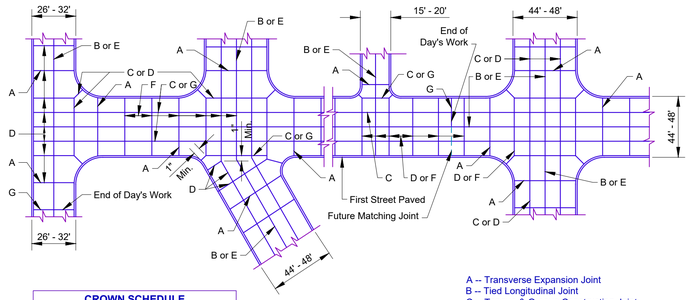

PLAN




SECTION "A - A"

NOTES:

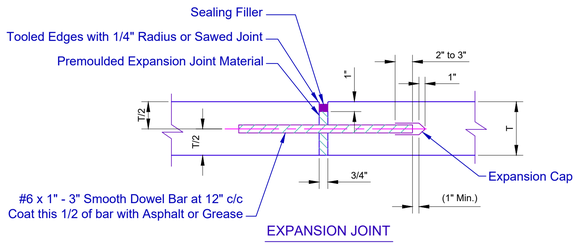
1. 1/2" x 4" premolded expansion material around Power Poles or other structures in walk with at least 36" of clear travel space.
2. Expansion Joints maximum distance = 100', use 1/2" x 4" premolded expansion material.
3. Contraction Joints maximum distance = 7', saw cut 1 1/2" deep and fill with sealant.
4. Saw cut joints within 24 hours.
5. All joints to be sealed. Premolded expansion material to be removed to a depth of 1/2" prior to applying sealant.



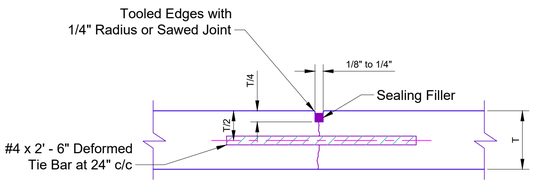

| CROWN SCHEDULE | | |
|---|---|---|
| FULL WIDTH | To 33' with 6" Curb | 32' & over with 8" Curbs |
| | 2 1/2" | 4" |

A -- Transverse Expansion Joint
B -- Tied Longitudinal Joint
C -- Tongue & Groove Construction Joint
D -- Contraction Joint
E -- Longitudinal Construction Joint
F -- Doweled Contraction Joint
G -- Doweled Construction Joint

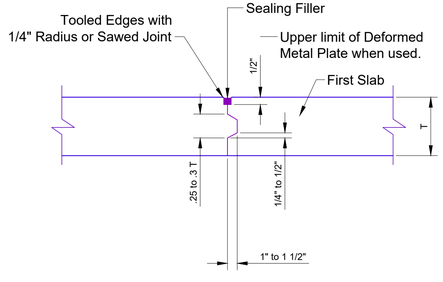
JOINT LAYOUT DETAILS



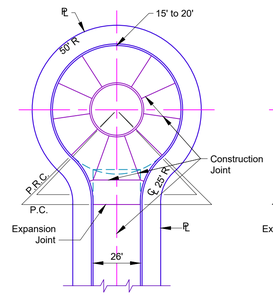

EXPANSION JOINT
TYPE "A"



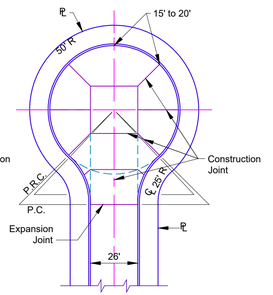

TIED JOINT
TYPE "B"




TONGUE & GROOVE CONSTRUCTION
TYPE "C"

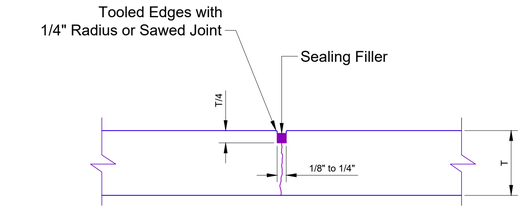



STANDARD CUL-DE-SAC, 38' R
•OPEN CENTER•

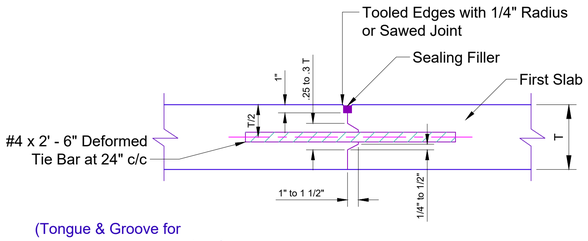



STANDARD CUL-DE-SAC, 38' R

JOINT LAYOUT DETAILS

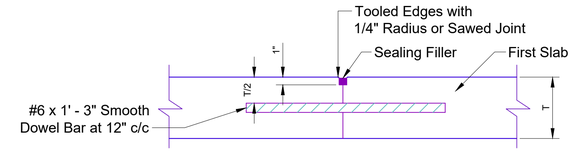



CONTRACTION JOINT
TYPE "D" (ALT. TYPE "F")




(Tongue & Groove for
Lane at a time construction.)

TIED CONSTRUCTION JOINT
TYPE "E"

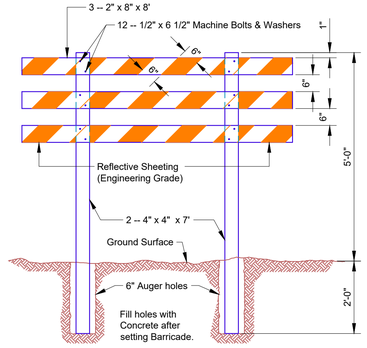



DOWLED CONSTRUCTION JOINT
TYPE "G"

NOTES:

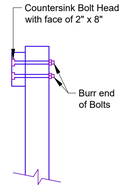
Smooth Dowel Bars across Expansion Joints shall be provided with Expansion Caps, and coated with Asphalt or Grease, (Type A & G).

Grooves in Joints may be formed by: (1) temporary embedment of a suitable Mandrel, (2) installation of a thin strip of premoulded Joint Filler Material, (3) sawing the Pavement after the Concrete has hardened.




NOTE:

Markings for Barricade Rails are to be Orange and White. Markings are to be 6" wide and attached at 45° angles as set forth in the latest edition of the Uniform Traffic Control Devices Manual

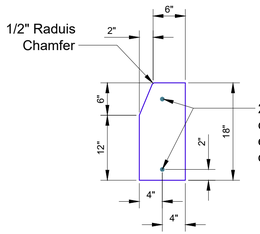



NOTES:

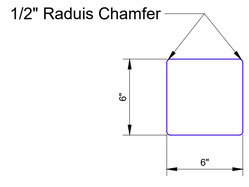
4" X 4" X 7' Timber are to be #2 or better S4S Yellow Pine, Wolmanized or Penta Treated.

2" x 8" x 8' Timber are are to be #2 or better S4S Yellow Pine KD.

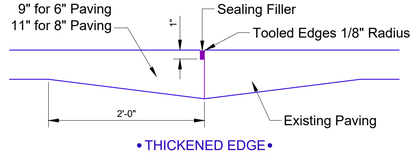
STANDARD REFLECTOR TYPE BARRICADE




•CONCRETE CURB•




•CONCRETE HEADER•



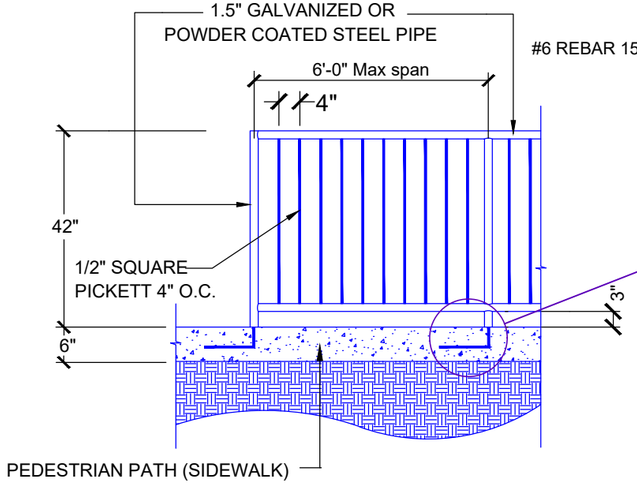

•THICKENED EDGE•

The City of Oklahoma City
Public Works Department
Engineering Division

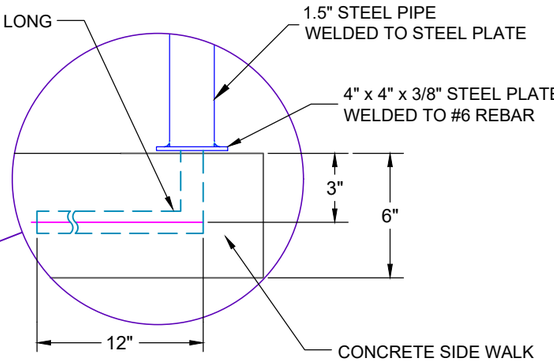
APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09-12-23
DRAWN: VSC
DATE: 02-07-13

# STANDARD TYPICAL SECTIONS MISCELLANEOUS DETAILS

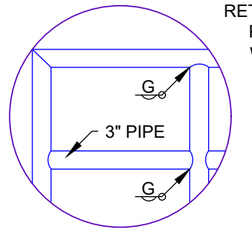
Drawing Number
D-500




PEDESTRIAN GUARDRAIL DETAIL

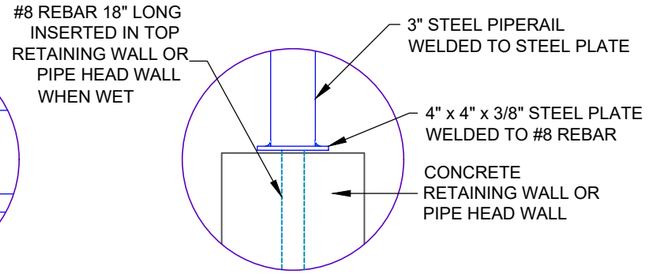



PEDESTRIAN GUARDRAIL
ATTACHMENT DETAIL

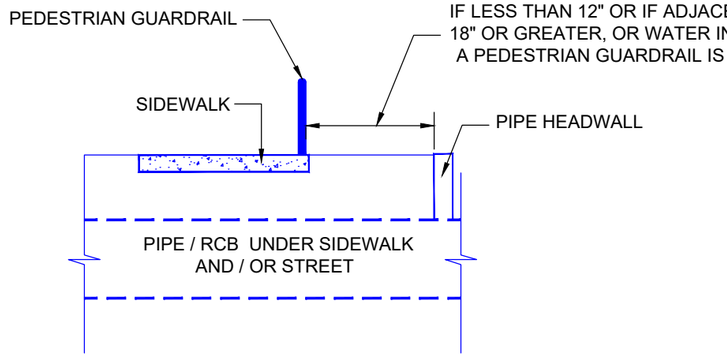


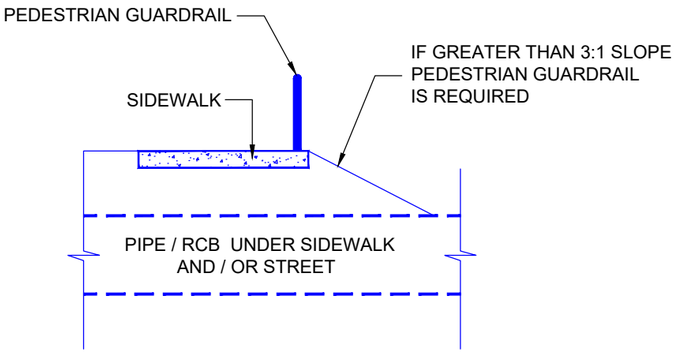

ALTERNATE DETAIL

(USING WELDED CONNECTIONS
ON PIPERAIL)



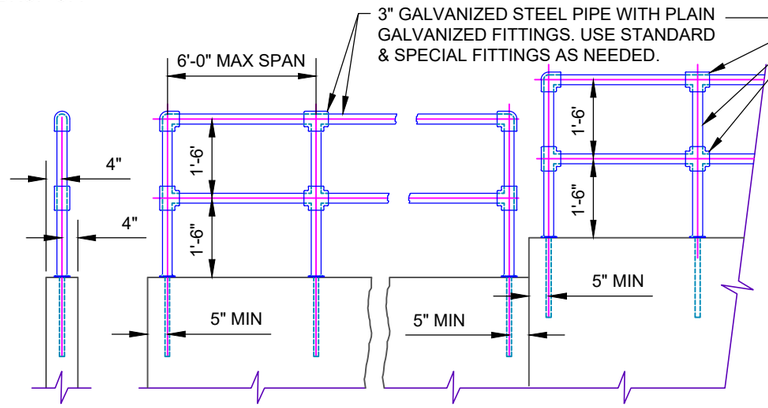

PIPERAIL
ATTACHMENT DETAIL




## NOTES:

1. VERTICAL STEEL PIPE TO BE SET ON 6' CENTERS, 4" CLEAR FROM BACK EDGE OF SIDEWALK.
2. MATERIALS SHALL BE COMPLY WITH THE STD. SPECIFICATIONS.
   SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO FABRICATION.




TYPICAL ELEVATION OF PIPERAIL

PIPERAIL NOTES:

1. A PIPERAIL SHALL BE PLACED ON RETAINING WALLS AND PIPE HEADWALLS WITHIN PUBLIC ROW OR UTILITY / DRAINAGE EASEMENT WITH A DROP OFF OF 18" OR GREATER.
2. WELDED CONNECTIONS MAY BE USED FOR PIPERAILS. WELDED CONNECTIONS SHALL BE THOROUGHLY CLEANED OF ALL LOOSE SCALE, GROUND SMOOTH AND SPOT PAINTED WITH TWO COATS OF ZINC RICH PAINT.
3. SHOP DETAILS FOR ALL PIPERAILS SHALL BE SUBMITTED FOR APPROVAL.
4. PIPERAIL MAY BE OMITTED BY THE CITY ENGINEER.

GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIAL SHALL BE IN ACCORDANCE WITH THE OKLAHOMA CITY STANDARD SPECIFICATIONS
2. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
3. ALL CONCRETE SHALL BE CLASS "A" CONCRETE 3000 PSI.
4. EXPANSION JOINTS SHALL BE AT A MAXIMUM OF 30'-0" INTERVALS.
5. ALL REINFORCING STEEL BARS SHALL BE DEFORMED BARS COLD BENT, NO WELDS PERMITTED.
6. ALL EXPOSED CONCRETE SURFACES SHALL HAVE A VERTICAL LIGHT BROOM FINISH.
7. ALL PEDESTRIAN GUARDRAIL AND PIPERAIL MATERIAL SHALL BE GALVANIZED OR POWDER COATED.

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY:
ERIC J. WENGER, P.E.
CITY ENGINEER

DATE: 09-12-2023

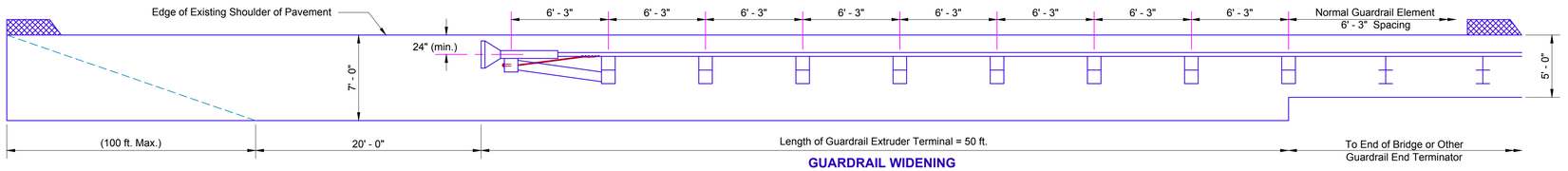
DRAWN: TVN

DATE: 2-22-2023

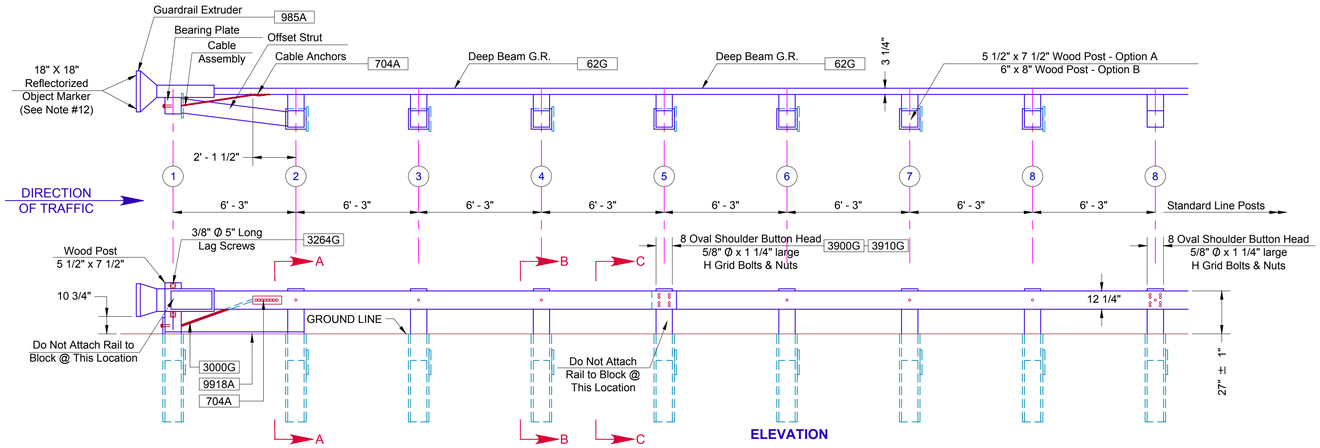
# PEDESTRIAN GUARDRAIL AND PIPERAIL DETAIL

Drawing Number

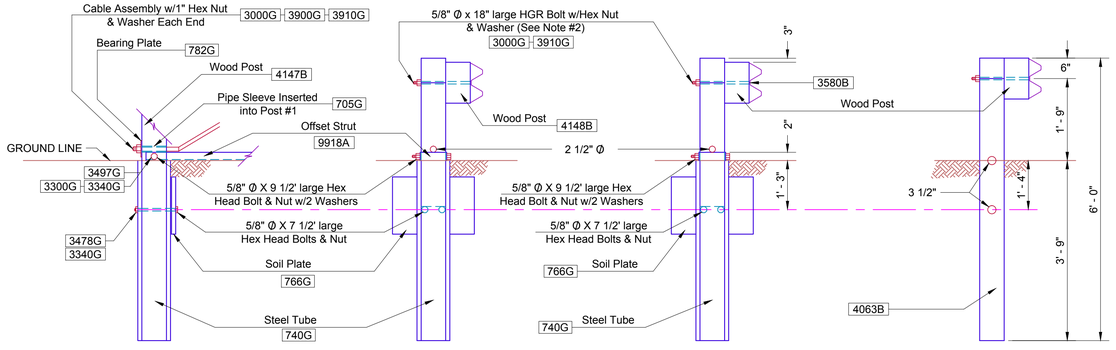
D-505




## GUARDRAIL WIDENING




## ELEVATION




**PARTIAL VIEW @ POST #1**

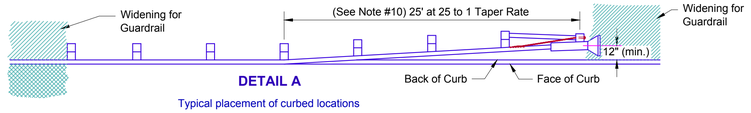
**SECTION A--A @ POST #2**

**SECTION B--B**

OPTION A: TYPICAL @ posts #3 thru #8
(Except Rail is NOT attached @ post #5)
OPTION B: TYPICAL @ posts #3 & #4

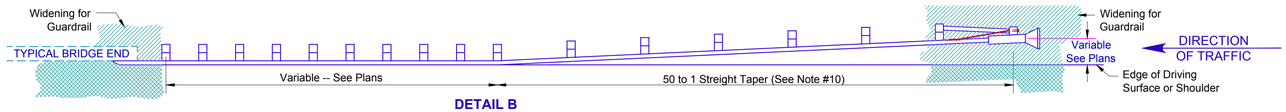
**SECTION C--C**

OPTION B: TYPICAL @ post #5 thru #8
(Except Rail is NOT attached @ post #5)




**DETAIL A**

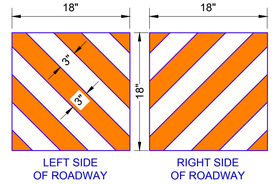
Typical placement of curbed locations




**DETAIL B**

Typical placement to protect ends.

| | OPTION | | G. E. T. BILL OF MATERIALS |
|---|---|---|---|
| | A | B | |
| Code # | Qty. | Qty. | DESCRIPTION |
| 62G | 1 | 1 | □1 Deep Beam Guardrail (12 Ga.) |
| 60G | 1 | 1 | □2 Deep Beam Guardrail (12 Ga.) |
| 740G | 8 | 4 | Steel Tube -- 6" x 8" x 54" x 3/16" |
| 766G | 8 | 4 | Soil Plate -- 18" x 24" x 1/4" |
| 4147B | 8 | 4 | Wood Posts -- 5 1/2" x 7 1/2" x 45" |
| 4148B | 7 | 7 | Wood Block -- 5 1/2" x6 1/2" x 14" |
| 705G | 1 | 1 | Pipe Sleeve -- 2" standard pipe x 5 1/2" |
| 782G | 1 | 1 | Bearing Plate -- 8" x 8" x 5/8" |
| 704A | 1 | 1 | Cable Anchor |
| 3000G | 1 | 1 | Cable Assembly |
| 9918A | 1 | 1 | Offset Strut |
| 985A | 1 | 1 | Guardrail Extruder |
| 4063B | -- | 4 | Wood Posts -- 6" x 8" x 72" |
| **Code #** | **Qty.** | **Qty.** | **HARDWARE** |
| 3478G | 16 | 8 | 5/8" x 7 1/2" Hex Head Bolt (Soil Plates) |
| 3497G | 8 | 4 | 5/8" x 9 1/2" Hex Head Bolt (Top of tubes) |
| 3300G | 11 | 11 | 5/8" Washer (2 each at Tubes 1 & 2 + 7 Posts) |
| 3580G | 7 | 7 | 5/8" x 18" H. G. R. Post Blot (Posts 2 thru 8) |
| 3360G | 16 | 16 | 5/8" x 1 1/4" H. G. R. Splice Bolt |
| 3340G | 47 | 35 | 5/8" H.G.R. Nut (SPL --16. Tubes--12, GR--16) |
| 3364G | 2 | 2 | 3/8" x 5" Lag Screw |
| 3910G | 2 | 2 | 1" hex Nut (Anchor Cable) |
| 3900G | 2 | 2 | 1" Washer (Anchor Cable) |
| 3117B | 1 | 1 | Reflectorized Object Marker (18" x 18") |




**DETAIL C**
**REFLECTIVE MARKER**

1. Reflective marker should be attached to the 18" x 18" end of the G. E. T. prior to installation.
2. Attachment surface should be thoroughly cleaned and dry before attaching marker. (Stick-on sheeting.)
3. Attachment adhesive sheeting should be free of air bubbles with all edges free of air bubbles with all edges firmly bonded.

## GENERAL NOTES

1. All construction and material requirements shall be in accordance with the Oklahoma Department of Transportation 1988 Standard Specifications and applicable Special provisions covering Guardrail Extruder Terminal.
2. All bolts, nuts, cable anchors, groundline cables and bearing plates shall be galvanized in accordance with section 732 of the Standard Specifications for Highway Construction, 1988 edition.
3. Guardrail components shall meet the applicable standards of "A Guide to Standardized Highway Rail Hardware", prepared and approved by the AASHTO-ARTBA-AGC Joint Cooperative Committee, Technical Bulletin Number 2688.
4. The steel tubes shall not protrude more than 4" above the ground (measured along a 5 foot chord.) Site grading may be necessary to meet this requirement.
5. The steel tubes may be driven with an approved driving head. they shall not be driven with the wood post in the tube. If the steel tubes are placed in drilled holes, the backfill material must be compacted to insure no settlement of tube.
6. When rock excavation is encountered, a 12" diameter post hole, 20 inches deep, may be used if approved by the Engineer. Granular material will be placed in the bottom of the hole approximately 2 1/2" deep to provide drainage. The steel tube sleeves may be field cut to 20 inches in length, placed in the hole and backfilled with adequately compacted material excavated from the hole.
7. The breakaway cable assembly must be taut. A locking device, (vice grips or channel lock pliers) should be used to prevent the cable from twisting when tightening nuts.
8. The wood blockouts shall be 'toe nailed' into the rectangular wood posts to prevent them from turning when the wood shrinks.
9. For curb installations, the soil tubes and posts shall be installed at the proper ground elevation behind the curb. The posts will then require new holes to be field drilled to accommodate the 'rail to post' connection bolt to maintain the proper height of the rail above the gutter pan. The excess post length above the rail will be removed if directed by the Engineer.
10. When the guardrail extruder terminal is specified as the end treatment for the MBGF installation, the MBGF will be tapered at a rate of 50 to 1, over the 50 foot GET system, to prevent the extruder head from encroaching on the shoulder. The taper may be decreased or eliminated for specific installations if directed by the Engineer. A 25 to 1 taper rate will be used at curb sections, beginning at post number one (recommended for curb sections no greater than 4 inches in height.) See Details A & B.
11. Extruder type terminals shall be install be installed when adjacent driving lanes are within 25 feet (horizontally) of extension side on the extruder terminal.
12. Extruder approach end (18" x 18" face) shall be covered by a Type I Object Marker of simulated Type III Object Marker (adhesive reflector sheeting,) with cost to be included in the price of extruder terminal. See Detail C.
13. The 5/8 inch flat washer is used under the nut behind the post only. No washer is used at the rail.
14. the breakaway posts at locations #5, 6, 7 & 8 may be as shown in Option B without foundation tubes. Posts at locations #1, 2, 3 &4 must use foundation tubes.
15. Wood posts are required with the guardrail extruder terminal (GET.)
16. For additional information on the widening typical section. See Standard GRAU-3 LATEST REVISION.

| BASIS OF PAYMENT | | |
|---|---|---|
| ITEM # | ITEM | UNIT |
| 623.06 (H) | G. E. T. GUARDRAIL END SECTIN | EACH |

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 02-07-13

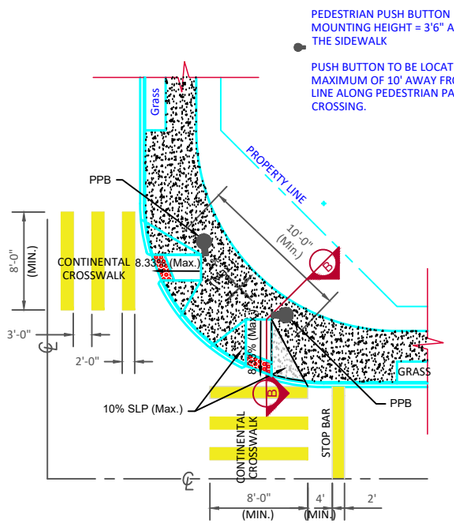
DRAWN: VSC

DATE: 02-07-13

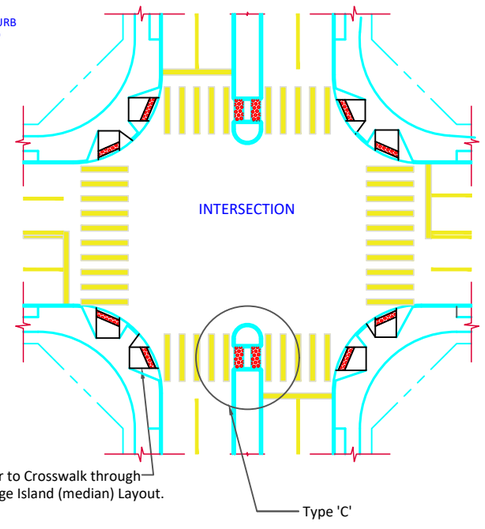
# GUARDRAIL EXTRUDER TERMINAL

Drawing Number
D-600

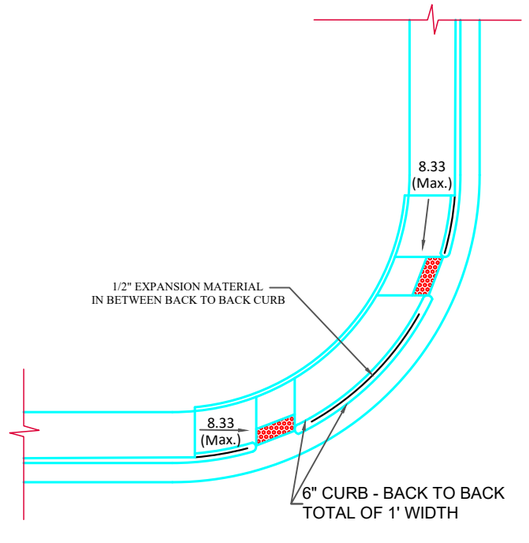
□i:\kc:..\kc:PW-Section:CITY ACAD-STDS:D-600 VSC 02-07-13



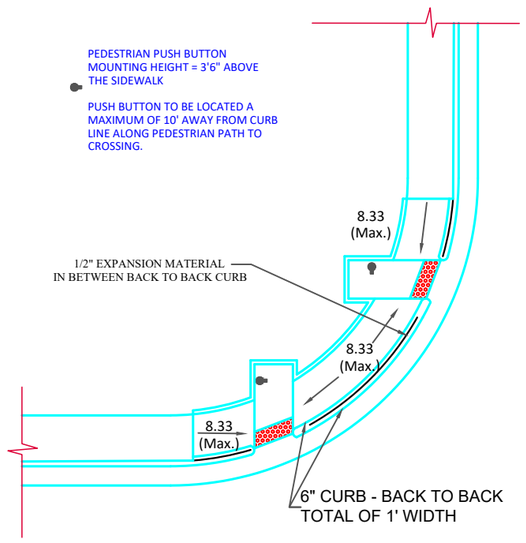

## CURB RAMP TYPE "A"



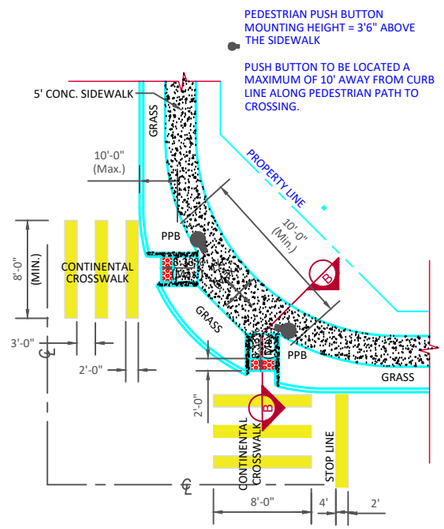

## INTERSECTION WITH REFUGE ISLANDS LAYOUT




## BACK OF CURB RAMP WITHOUT PEDESTRIAN PUSH BUTTON TYPE "G"

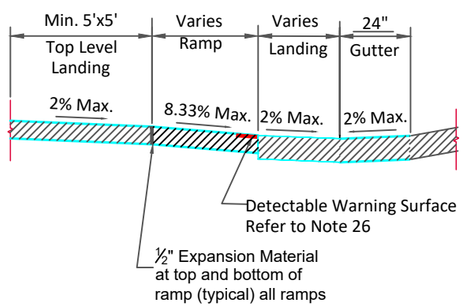



## BACK OF CURB RAMP WITH PEDESTRIAN PUSH BUTTON TYPE "G"

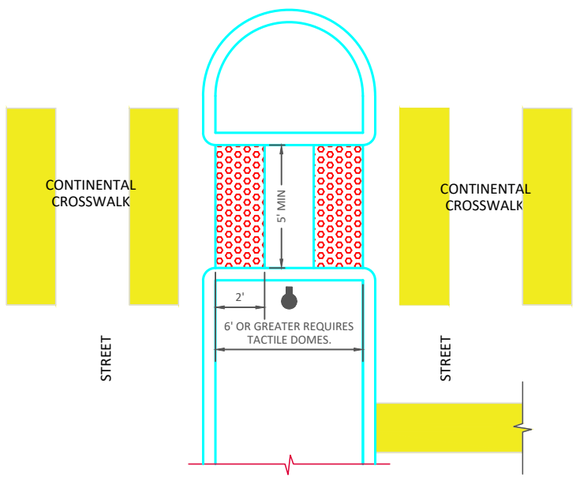



## CURB RAMP TYPE "B"

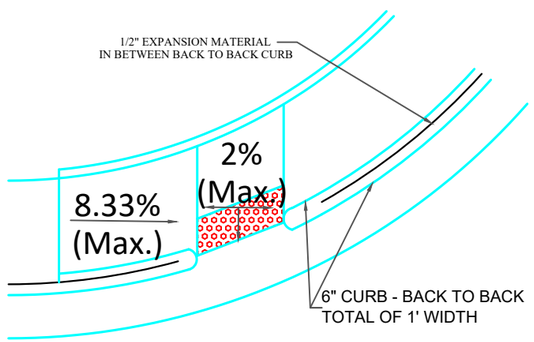
See Detail 1 & Detail 2 (Sheet B)




## SECTION B-B




## STANDARD CROSSWALK THROUGH MEDIAN LAYOUT TYPE "C"




## DETAIL OF TYPE "G" RAMP

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER
DATE: 09/12/2023
DRAWN: VSC
DATE:

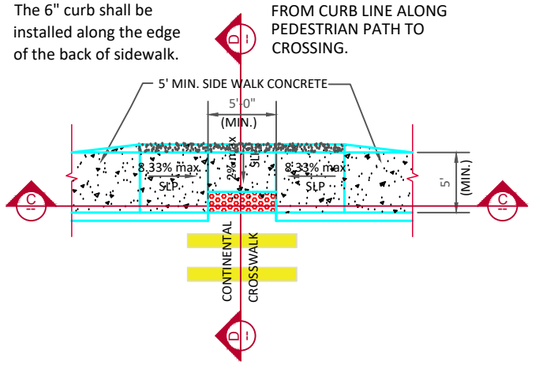
# ADA CURB RAMP DETAILS ARTERIAL STREETS

Drawing Number
D-700
A

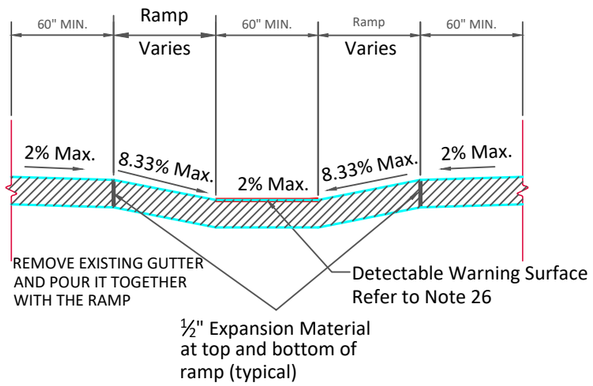
Curb-Ramp shall be used on narrow sidewalk or at mid block locations when standard curb ramp lay-out is not feasible. The 6" curb shall be installed along the edge of the back of sidewalk.

- PEDESTRIAN PUSH BUTTON MOUNTING HEIGHT = 3'6" ABOVE THE SIDEWALK

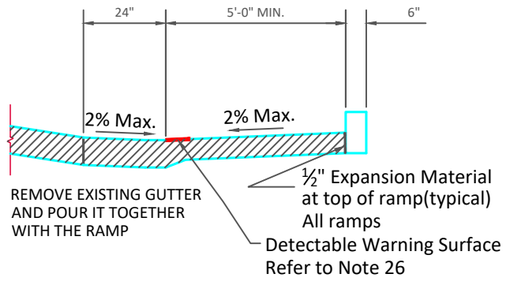
PUSH BUTTON TO BE LOCATED A MAXIMUM OF 10' AWAY FROM CURB LINE ALONG PEDESTRIAN PATH TO CROSSING.




## PARALLEL CURB RAMP TYPE "D"

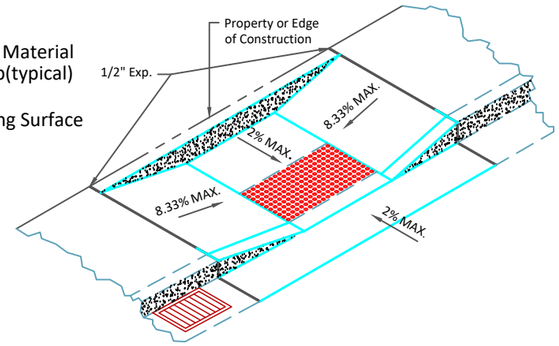



## SECTION C-C




## SECTION D-D

See Detail 2 for Isometric View

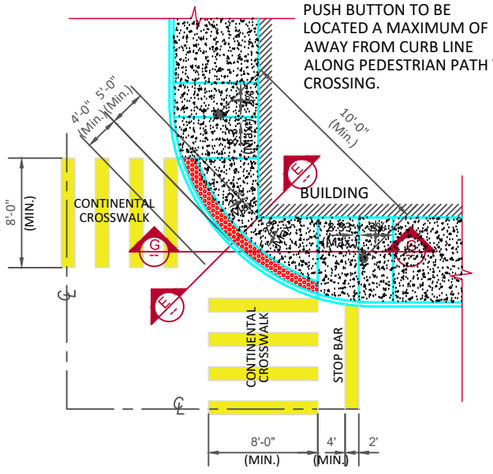



## DETAIL 2 TYPE D

Isometric

- PEDESTRIAN PUSH BUTTON MOUNTING HEIGHT = 3'6" ABOVE THE SIDEWALK

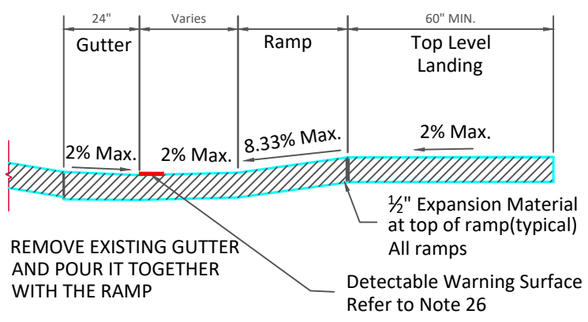
PUSH BUTTON TO BE LOCATED A MAXIMUM OF 10' AWAY FROM CURB LINE ALONG PEDESTRIAN PATH TO CROSSING.



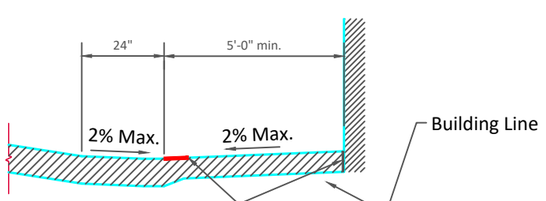

## RADIUS CURB RAMP TYPE "E"

See Detail 3 for Isometric View

Written approval by the City Engineer is required.

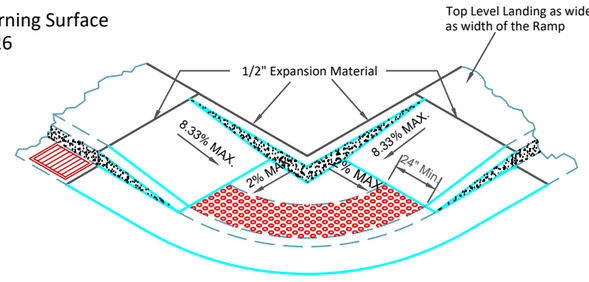



## SECTION G-G TYPE "E"



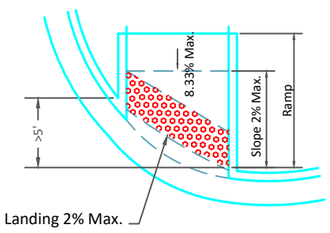

## SECTION E-E TYPE "E"

See Detail 3 for Isometric View



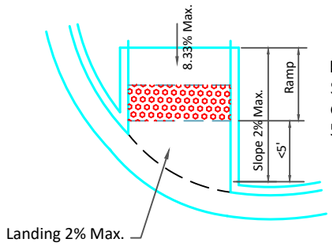

## DETAIL 3 TYPE E

Isometric




Place Detectable Warning Surface on bottom landing if landing is more than 5' deep at any point.

## DETAIL 1




Place Detectable Warning Surface on the bottom if both levels of grade break are less than 5' from back of curb

## DETAIL 2

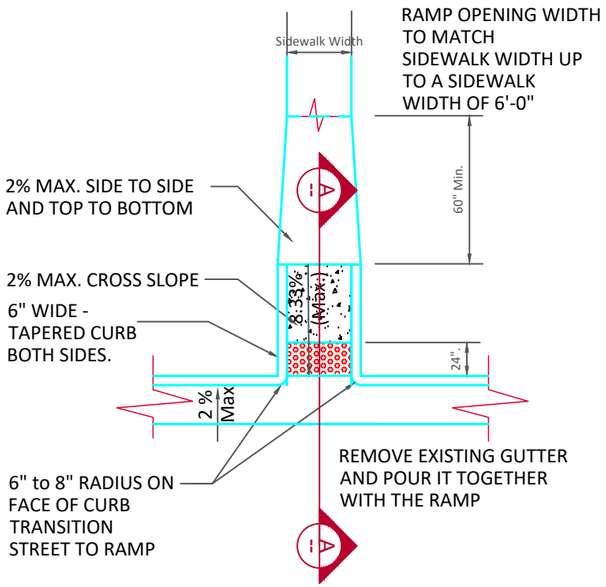
The City of Oklahoma City
Public Works Department
Engineering Division

DATE: 09/12/2023
VSC
APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER
DRAWN:
DATE:

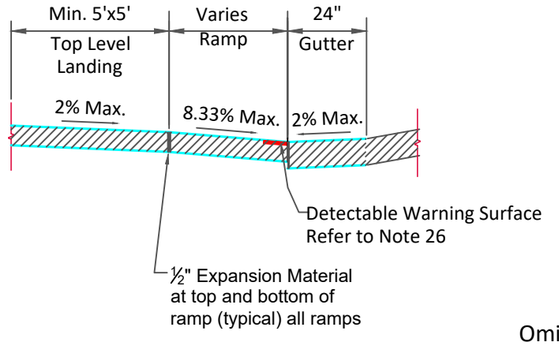
# ADA CURB RAMP DETAILS ARTERIAL STREETS

Drawing Number D-700

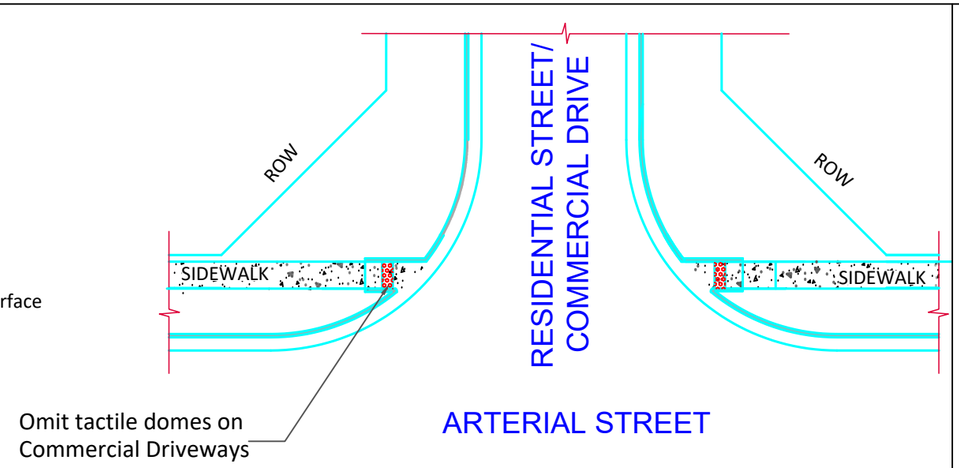
B




## METHOD OF TRANSITIONING A RAMP WITH DIE OUT CURBS

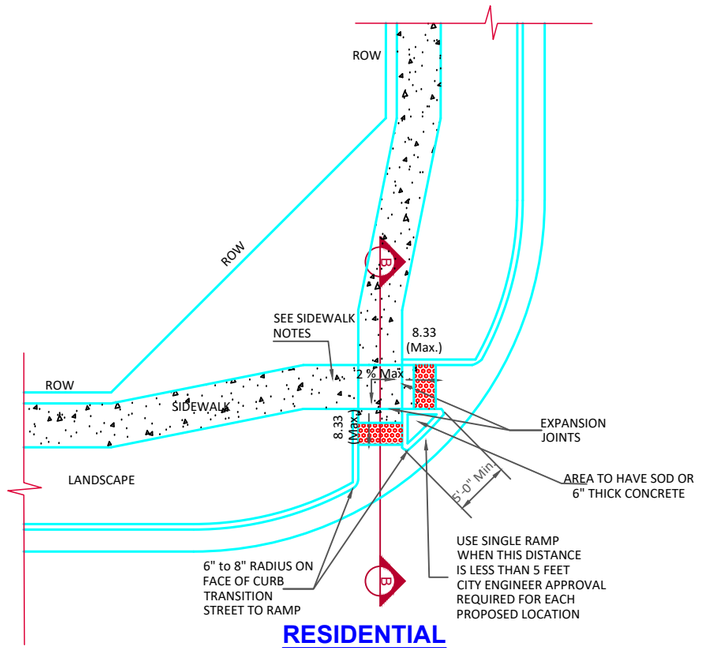



SECTION A-A

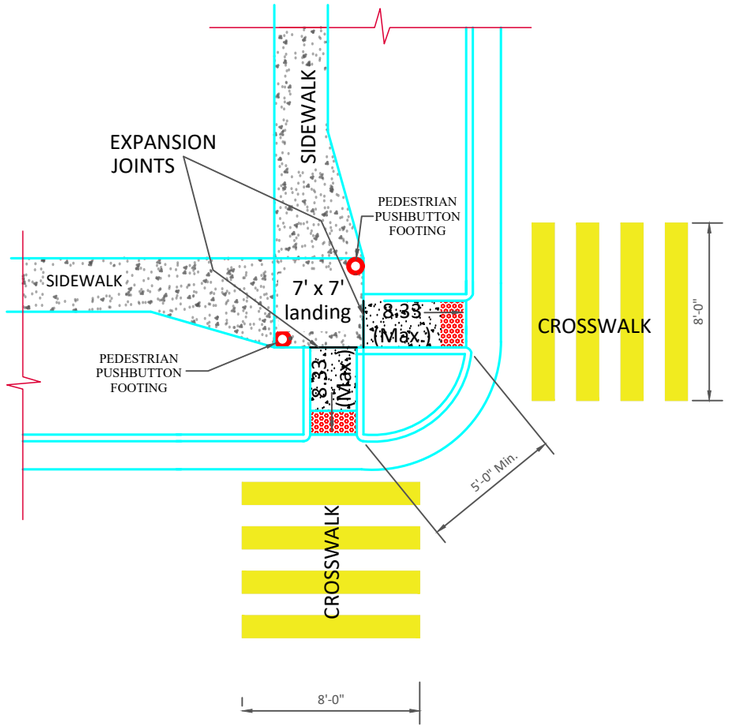



ARTERIAL STREET

## ARTERIAL / MINOR STREET RAMPS (OR COMMERCIAL DRIVES)




## RESIDENTIAL CURB RAMP TYPE "F"

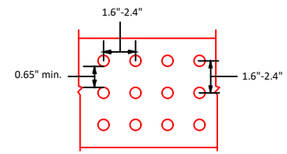



## SHARED LANDING AT SIGNALIZED INTERSECTIONS

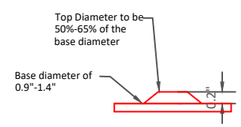
DETAIL 1

**Detectable Warning Surface Specifications:**

- Must provide a Visual Contrast.
- Raised Tactile surfaces used for way finding.
- Detectable Warning Surface shall be installed in a manner such that the domes are parallel to the direction of pedestrian travel.
- Install the Detectable Warning Surface beginning at back of curb.




PLAN
(Enlarged)




ELEVATION
(Enlarged)

## DETECTABLE WARNING SURFACE PATTERN LAYOUT

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E., CITY ENGINEER
DATE: 09/12/2023
DRAWN: VSC
DATE:

# ADA CURB RAMP DETAILS RESIDENTIAL STREETS COMMERCIAL DRIVES

Drawing Number
D-700
C

**Sidewalk Notes**:

1. All work must meet current Americans with Disabilities Act (ADA) requirements.

2. Minimum sidewalk width shall be as follows: residential, 5'-0" at curb, 4'-0" at property line; commercial, 6'-0" at curb, 5'-0" at property line.

3. Sidewalk cross slope shall be a maximum of 2% and a minimum of 1/2% cross slope.

4. Whenever the width of the sidewalk is less than 5'-0", a 5' x 5' passing area with a maximum 2% slope and minimum 1/2% slope in any direction at intervals of 200' shall be installed.

5. Whenever changing direction in a sidewalk, install a 5' x 5' passing area with maximum 2% slope and minimum 1/2% slope in any direction.

6. Objects such as tree branches, signs, water fountains, etc. shall not protrude into the sidewalk more than 4" at the heights between 27" and 80".

7. Sidewalk shall be constructed of 4" thick concrete with medium broom finish on top of 2" of 1.5" crusher run, ⅜" rock screenings, 1.5" clean recycled concrete or approved equal. Developers of Residential Neighborhoods are allowed the usage of 2" of sand instead of the required crusher run.

8. All obstructions into the walk, such as power poles, hydrants, sign posts, etc. must have at least 48" of clear travel space around the obstruction.

9. Sidewalk running grade shall not exceed 5% unless the sidewalk is contained in the R-O-W and then cannot exceed the general grade established for the adjacent street.

**General Notes**:

10. Any deviation from the standard curb-ramp plans shall be approved by the City Engineer or his designee on a case by case basis.

11. The standard curb-ramp drawings supersede all previous drawings and shall be a part of the new curb ramp standard drawings.

12. All alternate ramps shall be approved by the City Engineer or his designee prior to construction.

13. Seal all sawed joints on sidewalks, landings and ramps. Width of expansion joint shall be ½"

**Pedestrian Signals Notes**:

14. Push button must be located adjacent to and accessible from a landing.

15. A clear space of 30" x 48" minimum dimension must be next to the push button.

16. Maximum reach to a push button can not exceed 10".

**Curb Ramp Notes:**

17. A curb ramp is defined as the entire concrete surface which includes the ramp and flared sides. The minimum 4' wide center portion, including the Detectable Warning Surface, shall have a sloped plane of 8.33% (1:12) maximum, and cross slope, not to exceed 2%. The "flared side" of the ramp shall lie on a slope of 10% (1:10) maximum measured along the curb. The curb ramp shall have a surface tolerance of ¼" per 10 foot straight edge maximum.

18. The ramp center line and path of travel should be parallel to the sidewalk whenever possible. The full width of the ramp shall lie within the crosswalk area. It is desirable that the location of the ramp be as close as possible to the center of the crosswalk.

19. Curb Ramps shall not exceed 15' in length unless otherwise directed by the City Engineer.

20. Existing utility boxes and covers shall be adjusted flush with the curb ramp surface and shall not straddle any change in plane or material. Existing utility box frames and covers shall have matching surface finish on the entire frame and cover. New utility boxes shall not be placed within the accessible pathway.

21. The surface of the curb ramp and Detectable Warning Surface material shall be stable, firm and slip resistant. The concrete curb ramp surface shall be medium broom finished transverse to the axis of the ramp and shall be slightly rougher than the finish of the adjacent sidewalk surface.

22. A level landing 5'-0" deep, with a 2% maximum slope in each direction shall be provided at the upper end of each curb ramp to allow safe egress from the ramp surfaces. The width of the level landing shall be at least as wide as the width of the ramp. A clear space of a minimum of 30" wide x 48" deep shall be provided at pedestrian push buttons at signalized crossings. This space may be contained in the landing.

23. Existing vertical utility poles or street light poles may be incorporated into the flared sides, if necessary. The vertical obstruction shall be a minimum of 6"away from edge of the ramp. Pedestrian crosswalks push button poles, fire department call boxes and other poles with activated devices, may not be placed in the curb-ramp at any time. No new vertical obstructions may be located in the curb ramp or the accessible pathway.

24. Ramp opening shall be the same width as the sidewalk up to 6'-0" wide.

25. Curb Ramp shall be constructed with 8" thick concrete at collector and arterial streets; and with 6" thick concrete at residential streets. All on top of 2" of 1.5"crusher run, ⅜" rock screenings, 1.5" recycled concrete or approved equal. The 6" thick concrete will extend the maximum length of 6' from the face of curb and the 8" thick concrete will extend the maximum length of 8' from the face of curb. The remainder of the ramp will be constructed of 4" thick concrete and paid as sidewalk. All landings and incidental connections will be paid as sidewalk and will be constructed of 4" thick concrete. A 6" concrete curb will be constructed on each side of the ramp where 1:10 concrete slopes are not used.

26. For new construction all Detectable Warning Surfaces are to be set in concrete. Surface applied domes require special written approval by the City Engineer.

27. Curb ramp pay items shall only be used at street intersections, signalized driveways or alleys with tactile domes.

28. Where feasible, ramps shall align in such a way that the pedestrian travel path shall provide a direct path to corresponding ramp. Ramps that require pedestrians to change direction of travel in the street or driveway shall require City Engineer approval.

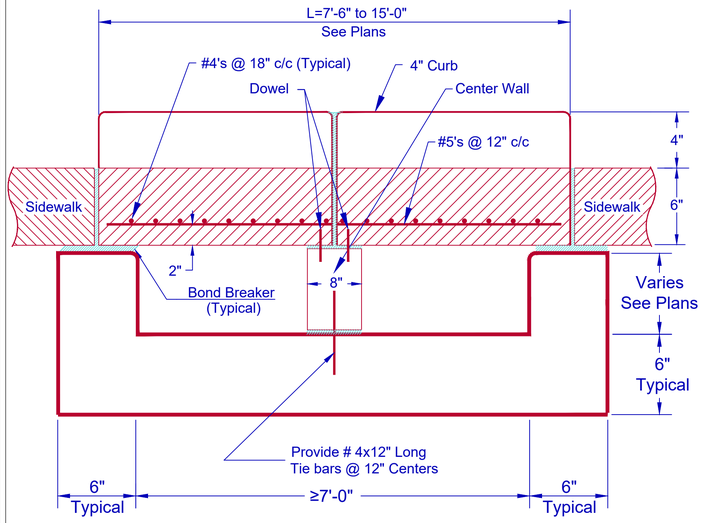
29. Where a ramp ties into an existing curb and gutter, the entire curb and gutter shall be removed and replaced extending 2 feet past the width of the ramp on each side.

The City of Oklahoma City
Public Works Department
Engineering Division

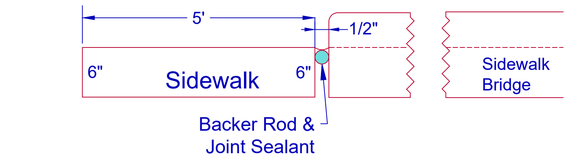
APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: VSC
DATE:

# ADA CURB RAMP DETAILS

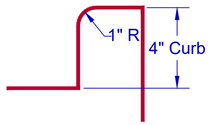
Drawing Number
D-700
D



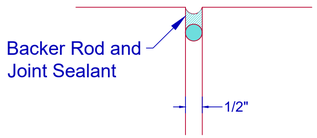

Section A-A for 7'-0" or greater span length




Detail 1




Detail 2

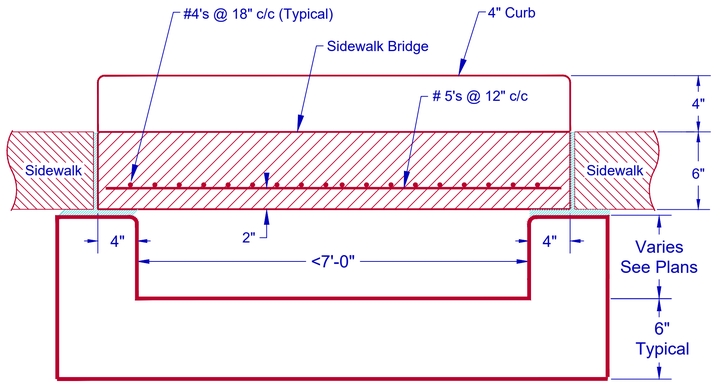



Seal from top of curbs down face of curbs and across full width of walkway

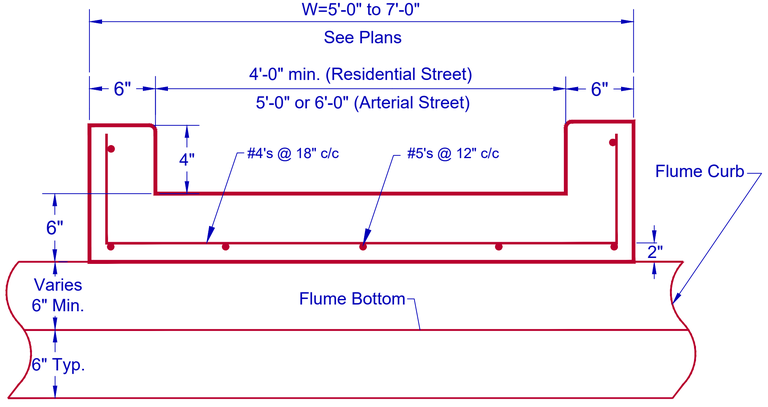
Detail 3

## Sidewalk Bridge Notes:

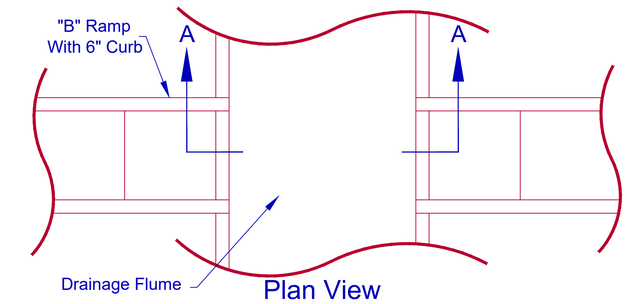
1. The width of the sidewalk bridge must be at least as wide as the adjacent sidewalk.
2. # 5 bars must extend to within 1 1/2" of the end forms.
3. Flume crossing with sidewalk bridges having a walking path greater than 5' wide require a separate design
4. Flume crossing with a dimension of 18" or greater from flume surface to the walkway surface will require pedestrian guardrail.
5. 3/4" chamfer (typical) required on all exposed edges.



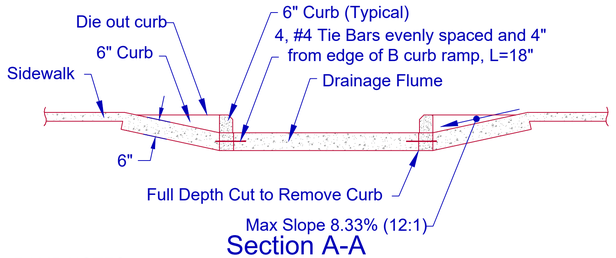

Section A-A for less 7'-0" span length




Section B-B



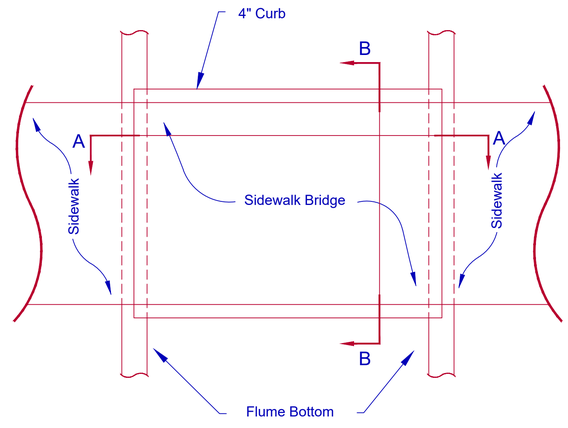

Plan View




Section A-A

RAMP NOTES:

1. In most cases, to be constructed as shown above unless grade or other factors require the construction of a sidewalk bridge.
2. If flume grade is more than 2%, then bottom of flume must be reconstructed so the longitudinal grade is 2% or less to meet ADA requirements for sidewalk cross slope. The transition on each side of sidewalk in bottom of flume must be at least 2' wide and a maximum grade equal to 2x the longitudinal flume grade.




Plan View

Sidewalk at Flume Crossing

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER — DATE: 09/12/2023
DRAWN: TVN
DATE: 02-26-20

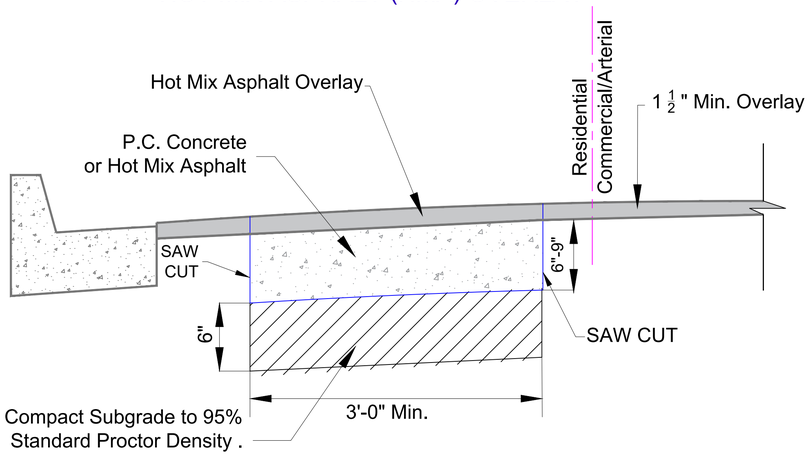
# ADA SIDEWALK AND CURB RAMP AT FLUME DETAILS

Drawing Number
D-700E

D-700C-2020

# PAVEMENT REPAIR DETAILS

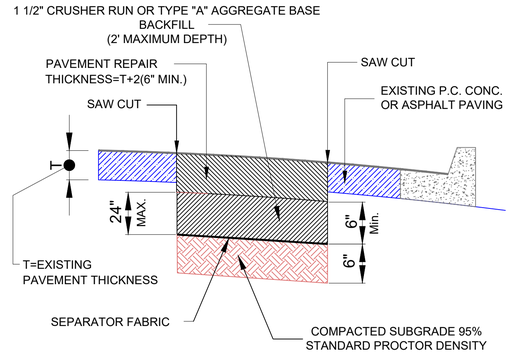
## HOT MIX ASPHALT (HMA) OVERLAY




NOTES:

1. Pavement repairs includes removal of Asphalt or P.C. Concrete Pavement depending on existing conditions, saw cut should be included In price.
2. Hot Mix Asphalt shall meet density-specification

## EXISTING ASPHALT OR CONCRETE BASE REPAIR DETAIL

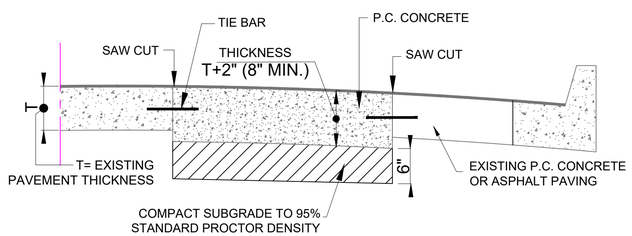



NOTES:

1. Excavation and aggregate base backfill begins at the bottom of the existing pavement and extends downward to a maximum depth of 2 feet.
2. The contractor shall not begin the backfill operation until measurement of the excavation has been made and agreed upon by the engineer and the contractor.
3. Backfill material will be placed in lifts not to exceed six inches (6") and compacted o 95% Standard Proctor Density.
4. Subgrade compaction saw cut and separator fabric will not be paid for separately. Include cost in price bid for other items of work.
5. Use black colored concrete when repairing asphalt paving. Use Soloman Color's Color #920 and apply at 25 lbs per 2 CY of concrete.

# PAVEMENT REPAIR DETAILS

## P.C. CONCRETE PAVING

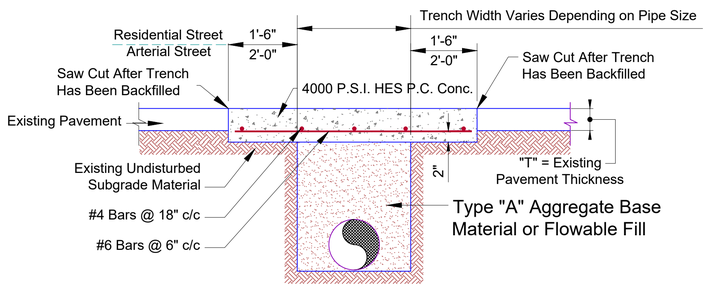



NOTES:

1. Remove existing concrete paving, to be included in price. Partial panel replacement not permitted, saw cut should be included in price.
2. When utility trench is the reason for pavement repair, see typical permanent repair section for details on reinforcing steel, backfill material. and trench width, elc.
3. Tie bars to be 1" dia. deformed bars (11" dia. for pavement 8" thick and greater) 18" length and spaced at 18" centers. Anchored with epoxy.
4. For Transverse joints, use smooth bars with same dimensions as in note #3.Only One end anchored with epoxy
5. Concrete panel to be double sawed 6" apart to protect 1he pavement edge during excavation.
6. Use black colored concrete when repairing asphalt paving. Use Soloman Color's Color #920 and apply at 25 lbs per 2 CY of concrete.

## UTILITY PAVEMENT CUT AND PERMANENT TRENCH REPAIR

### TYPICAL REPAIR SECTION FOR CITY STREET




NOTES:

1. Aggregate base to be compacted 95% Standard Proctor Density in 6" lifts.
2. The City Engineer may require full P.C. Concrete panel replacement depending on street location and functional classification.
3. Thickness of repair shall be "T" + 2", but shall not be less than 10 inches.
4. The cost of saw cut, removal, rebar and placement of compacted back fill to be included in price bid per square yard of repair unless otherwise stated in the contract documents.
5. Use black colored concrete when repairing asphalt paving. Use Soloman Color's Color #920 and apply at 25 lbs per 2 CY of concrete..

The City of Oklahoma City
Public Works Department
Engineering Division

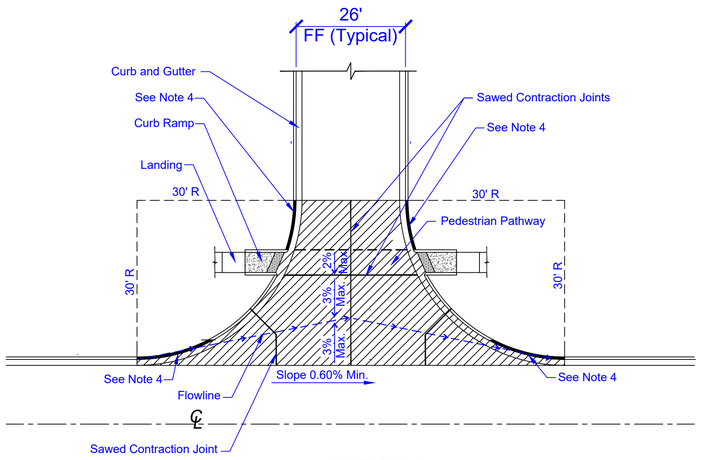
APPROVED BY:
ERIC J. WENGER, P.E.
CITY ENGINEER
DATE: 09-12-23

DRAWN: TVN

DATE: XX-XX-XX

# STANDARD DETAILS

Drawing Number
D-800
A

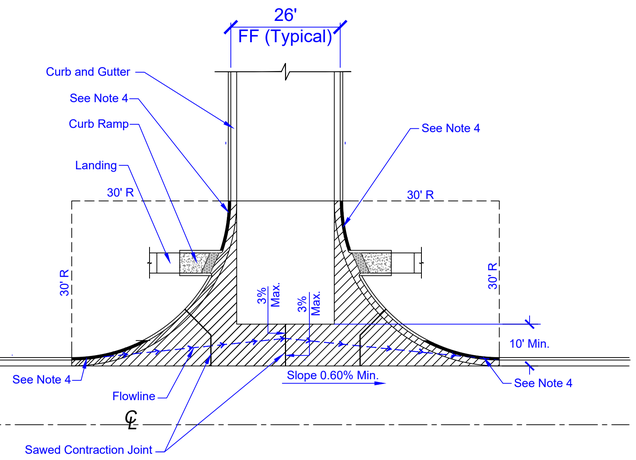



## OPTION 1
## CONCRETE VALLEY GUTTER

FOR ASPHALT PAVED STREETS

NOTES:

1. Use Class AA 4000 psi (HES) Concrete, 8" Thick for Retrofit. Use Class A 3000 psi, 8" Thick for New Construction.
2. Rebar #4 @ 12" CC.
3. A=122.16 SY (Typical) Not Including Curb and Gutter.
4. Remove and Replace 6' to 8' of Existing Curb and Gutter. Replace entire Curb and Gutter Radius if in Poor Condition.

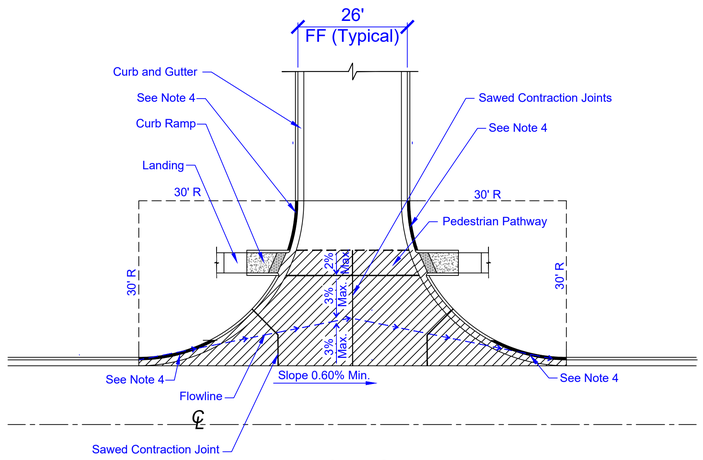



## OPTION 2
## CONCRETE VALLEY GUTTER

FOR ASPHALT PAVED STREETS

NOTES:

1. Use Class AA 4000 psi (HES) Concrete, 8" Thick for Retrofit. Use Class A 3000 psi, 8" Thick for New Construction.
2. Rebar #4 @ 12" CC.
3. A=73.27 SY (Typical) Not Including Curb and Gutter.
4. Remove and Replace 6' to 8' of Existing Curb and Gutter. Replace entire Curb and Gutter Radius if in Poor Condition.



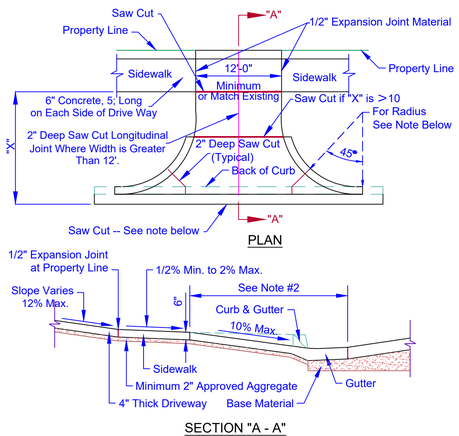

## OPTION 3
## CONCRETE VALLEY GUTTER

FOR ASPHALT PAVED STREETS

NOTES:

1. Use Class AA 4000 psi (HES) Concrete, 8" Thick for Retrofit. Use Class A 3000 psi, 8" Thick for New Construction.
2. Rebar #4 @ 12" CC.
3. A=91.80 SY (Typical) Not Including Curb and Gutter.
4. Remove and Replace 6' to 8' of Existing Curb and Gutter. Replace entire Curb and Gutter Radius if in Poor Condition.

## DRIVEWAY DETAIL

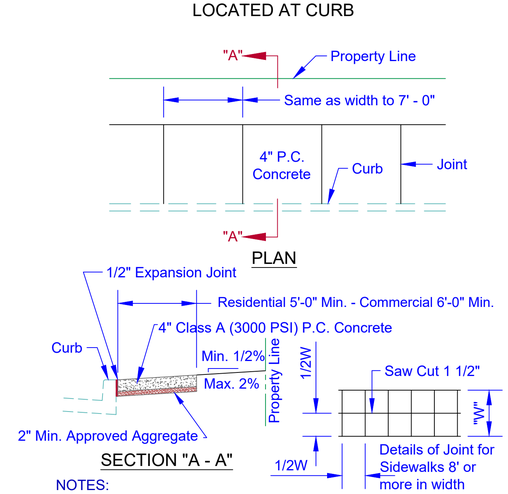



SECTION "A - A"

NOTES:

1. A 5' - 0" minimum radius is approved for one & two family residences not abutting a limited access or major street. All other Driveways will have a 10' 0 " minimum radius.
2. The Driveway Contractor shall saw cut & remove the complete Curb and Gutter section. Saw cuts shall be 2" or 1/3 the depth of the gutter, whichever is greater, include the top & face of curb as well as the gutter, be made prior to the removal of concrete, and be full depth for removal and 2" or $\frac{1}{3}$ the depth for crack control, whichever is greater.
3. If a gutter holds water prior to any construction by driveway Contractor, he should notify the City Engineer of the situation before doing any work. The completed driveway work will not be accepted if the gutter holds water due to poor construction by the Contractor.
4. It is recognized that this driveway detail will not cover every possible situation encountered in construction. Additional expansion joints will be required as needed.
5. Clean and seal all joints and saw cuts in accordance with standard specifications.
6. Longitudinal and Transverse Joints, required for drives 12' wide & over. Saw cut 2" or 1/3 depth and fill with silicone sealant.
7. Do not turn radius in front of adjacent property without written permission from adjacent property owner.
8. When connecting a new sidewalk to an existing steep driveway, which cannot be made ADA compliant, the transition panel on each side of the driveway shall not be more than 5' in length, unless approved by the engineer.
9. For a residential or commercial structure located below street level, the high point of the sidewalk where it crosses the driveway shall be at least 6" above the street gutter elevation.

## DETAILS FOR SIDEWALK
LOCATED AT CURB

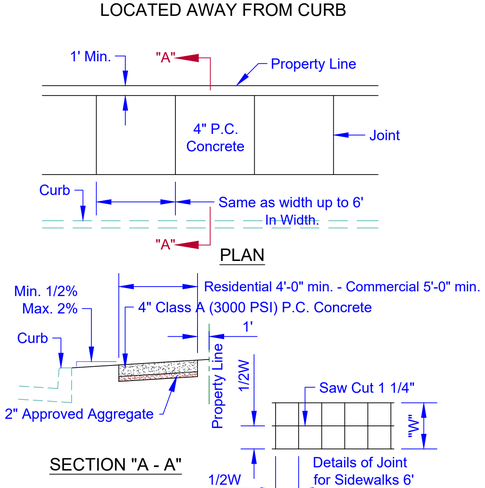



SECTION "A - A"

NOTES:

1. 1/2" x 4" premolded expansion material around Power Poles or other structures in walk, with at least 36" of clear travel space.
2. Expansion joints maximum distance = 100', use 1/2" x 4" premolded expansion material.
3. Transverse contraction joints maximum distance = 5', saw cut or Tool 1 $\frac{1}{4}$" deep.
4. Saw cut joints within 24 hours or 12 hours if temperature is above 85°F.
5. Use 1/2" x 4" premolded expansion joint behind curb or attached to curb.
6. Medium broom finish (transverse).
7. Use edger tool on all edges.

## DETAILS FOR SIDEWALK
LOCATED AWAY FROM CURB




SECTION "A - A"

NOTES:

1. Place 1/2" premolded expansion material around Power Poles or other structures in walk, with at least 36" of clear travel space.
2. Expansion joints maximum distance = 100', use 1/2" x 4" premolded expansion material.
3. Transverse Contraction joints maximum distance = 5', saw cut or tool 1 $\frac{1}{4}$" deep.
4. Saw cut joints within 24 hours or 12 hours if temperature is above 85°F.
5. Medium broom finish (transverse).
6. Use edger tool on all edges.

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER
DATE: 09-12-23

DRAWN: TVN

DATE: XX-XX-XX

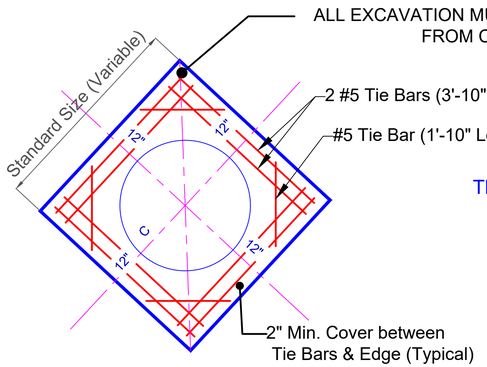
# STANDARD DETAILS

Drawing Number
D-800
B

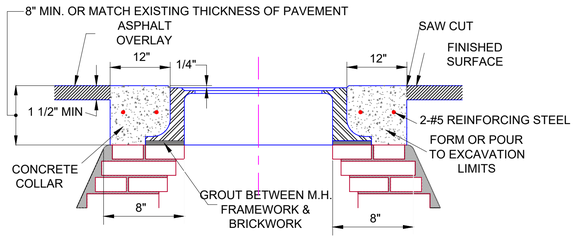
## ADJUSTMENT OF MANHOLE TO GRADE

Note:

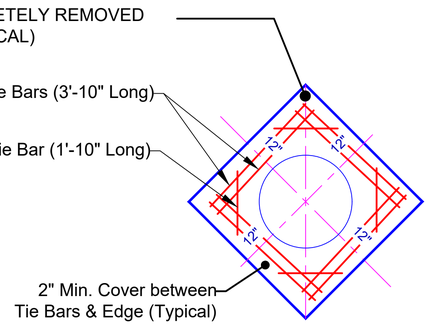
1. The manhole frame shall be set to grade and conctete collar poured after surfacing operations. Existing ring and lid must be replaced with Deeter Foundry, Inc., shown on drawing number 1197-0110 and 1197-2100 respeclivety, or approved equal. The top of the ring and lid must match exactly the existing pavement grade, both longitudinally and transversely.
2. Concrete collar shall be H.E.S. Class AA 4000 PSI P.C. Concrete (3000 PSI in 24 hours). Concrete must be thoroughly vibrated. Contractor must call for inspection for verification of structure & dimensions before placing concrete.
3. The work shall be protected by barriers and lights meeting MUTCD and shall not be removed for a period of 24 hours after the pour is made.
4. Subgrade outside the limits of the manhole cone, must be compacted with mechanical compactor such as the "Wacker Packer" before placing concrete. The subgrade must be firm and unyielding.
5. All excavation at the corners of the concrete collar must be removed so that it is a minimum of 8" thick for the full extent of the collar.
6. Place one #5 reinforcing steel diagonal al each corner 4" from the edge of the manhole ring.



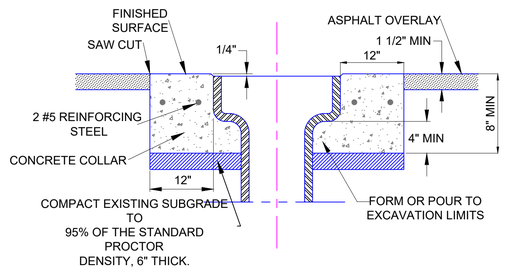

PLAN VIEW OF MANHOLE




## ADJUSTMENT OF VALVE BOX TO GRADE




PLAN VIEW OF VALVE BOX




Note:

1. The valve box shall be set to grade and concrete collar poured after resurfacing operations. The top of the valve box must match exactly the existing pavement grade, both longitudinally and transversely.
2. Concrete base shall be H.E.S. Class AA 4000 PSI P.C. Concrete (3000 PSI In 24 hours). Concrete must be thoroughly vibrated. Contractor must call for inspedlon for verification of structure & dimensions before placing concrete.
3. The work shall be protected by barriers and lights meeting MUTCO and shall not be removed for a period of 24 hours after the pour is made.
4. Subgrade outside the limits of the manhole cone, must be compacted with mechanical compactor such as the "Wacker Packer" before placing concrete. The subgrade must be firm and unyielding.
5. All excavation al the comers of the concrete collar must be removed so that it is a minimum of 8" thick for the full extent of the collar.
6. Place one #5 reinforcing steel diagonal at each corner 4" from the edge of the manhole ring.

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY:
ERIC J. WENGER, P.E.
CITY ENGINEER

DATE: 09-12-23

DRAWN: TVN

DATE: XX-XX-XX

# STANDARD DETAILS

Drawing Number
D-800
C