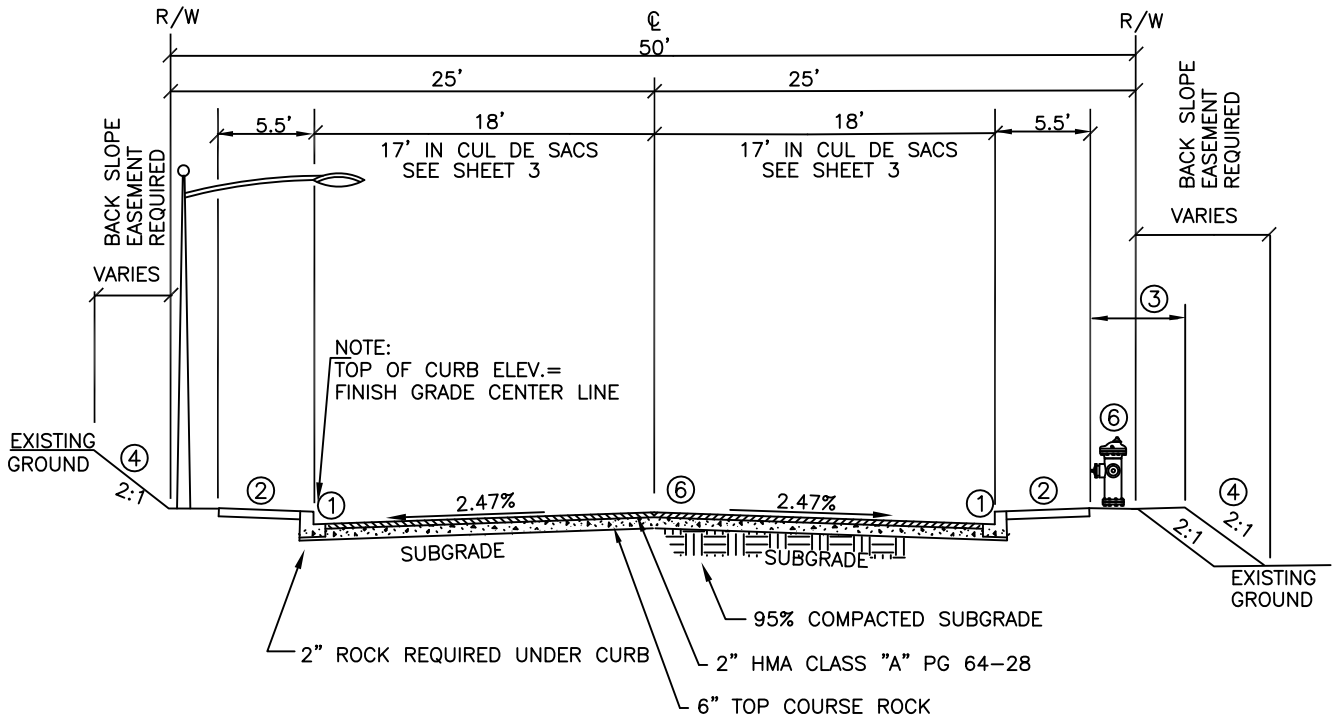
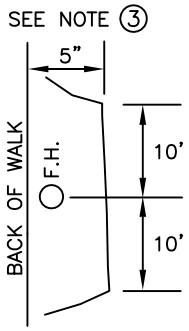


NOTES:



① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK

③ MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)

④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ PARKING PERMITTED ON BOTH SIDES OF STREET

⑥ DESIGN
ON ALL THROUGH STREETS, OTHER THAN MINOR LOOP STREETS, THE MINIMUM CENTERLINE RADIUS SHALL BE 200' UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
ON MINOR LOOP STREETS, WHERE THE STREET MAKES A 90° PLUS OR MINUS 5° TURN, THE MINIMUM CENTERLINE RADIUS SHALL BE 50'. ON ALL OTHER MINOR LOOP STREET CURVES, THE MINIMUM CENTERLINE RADIUS SHALL BE 150'. THE MAXIMUM STREET GRADE SHALL NOT EXCEED 12% UNLESS APPROVED BY THE CITY ENGINEER.

⑦ FOR CUL-DE-SACS SEE SHEET 3.

PRIOR TO 2005

SEE SHEET 2 OF 4 FOR DEVELOPMENTS APPROVED AFTER JANUARY 1,2005

AUGUST 8, 2013

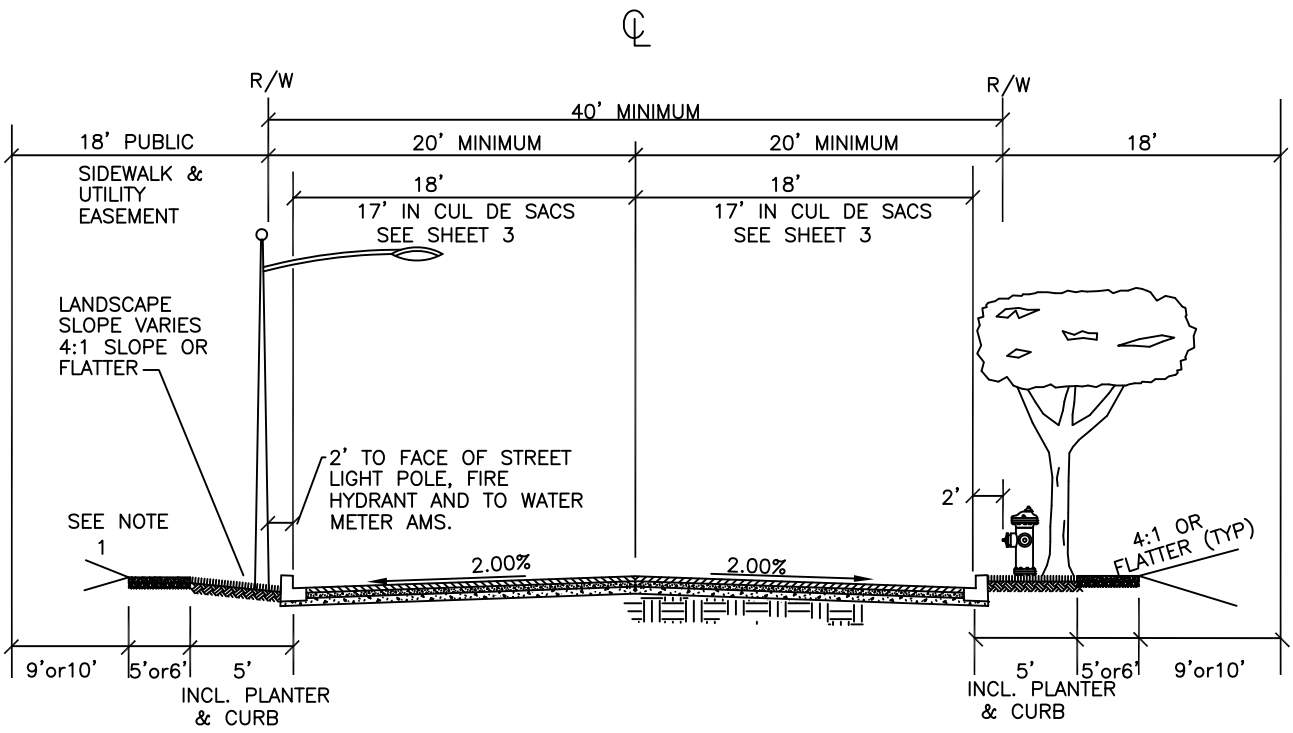
BENTON CITY

RESIDENTIAL STREETS

DWG # 2-1

SHEET 1 OF 4

S:BCGEN/DETAILS/2-1-1 RES STREETS.DWG



NOTES:

1. **SIDEWALK AND DRIVEWAY CONSTRUCTION.** IN CONJUNCTION WITH THE STREET DESIGN, THE DESIGNER WILL INCLUDE A SIDEWALK PROFILE, IF THE GRADE OF THE SIDEWALK WILL DIFFER FROM A DESIGNATED STANDARD VERTICAL OFFSET FROM THE CURB. ALL ADA CURB RAMPS SHALL BE SLOPED AT 12:1 OR FLATTER. SIDEWALKS ADJOINING A WALL OR FENCE SHALL BE 6' WIDE. THE LAND DEVELOPER WILL BE REQUIRED TO INSTALL CURB CUTS, IRRIGATION CONDUIT AND CONSTRUCT THE SIDEWALK TO THE APPROVED SIDEWALK DESIGN GRADE. THE SIDEWALK, FOR THE WIDTH ALIGNING WITH THE TOP OF THE DRIVEWAY CURB CUTS SHALL BE 6 INCHES THICK PER STANDARD DRAWING 2–10. INSTALL 1 1/2" CL 160 PVC CAPPED AND MARKED IRRIGATION CONDUIT 12" UNDER SIDEWALK ON EACH SIDE OF DRIVEWAY. THE HOME BUILDER WILL BE REQUIRED TO CONSTRUCT THE CONCRETE DRIVEWAY FROM THE CURB TO THE SIDEWALK.

2. **PLANTING AREA.** LANDSCAPE ELEMENTS, IRRIGATION SYSTEM, PLANT MATERIALS, AND STREET TREES SHALL BE COMPLETED BY THE HOME BUILDER AND MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER. ALL IRRIGATION AND LANDSCAPE IMPROVEMENTS SHALL MEET THE APPROVAL OF THE CITY.

3. WHERE ADJOINING STEEP GRADES WOULD PROVIDE DRIVEWAYS STEEPER THAN 20%, SIDEWALKS SHALL BE PLACED ADJOINING THE CURB IN THE IDENTIFIED AREAS. ALTERNATIVE CROSS SECTIONS WILL BE CONSIDERED. IN ALL CIRCUMSTANCES, THE MINIMUM SET BACK FOR GARAGES MUST BE A MINIMUM OF 25 FEET FROM THE BACK OF SIDEWALK. WHERE DEVIATIONS ARE APPROVED, IT IS ANTICIPATED THAT A "MEANDERING SIDEWALK" WILL BE PROVIDED WITHIN THE SUBDIVISION. THE STANDARD SIDEWALK OFFSET INSTALLATION SHOWN WILL BE USED WHERE CONDITIONS ALLOW, AS DETERMINED BY THE CITY ENGINEER.

4. WATER AND SEWER TO BE STUBBED TO THE HOME SIDE OF THE SIDEWALK. SEE DRAWING 1–3, NOTE 4.

5. FOR CONSTRUCTION NOTES AND DETAILS NOT SHOWN, SEE SHEET 1.

2005 AND NEWER

SEE SHEET 1 FOR DEVELOPMENTS APPROVED PRIOR TO JANUARY 1,2005

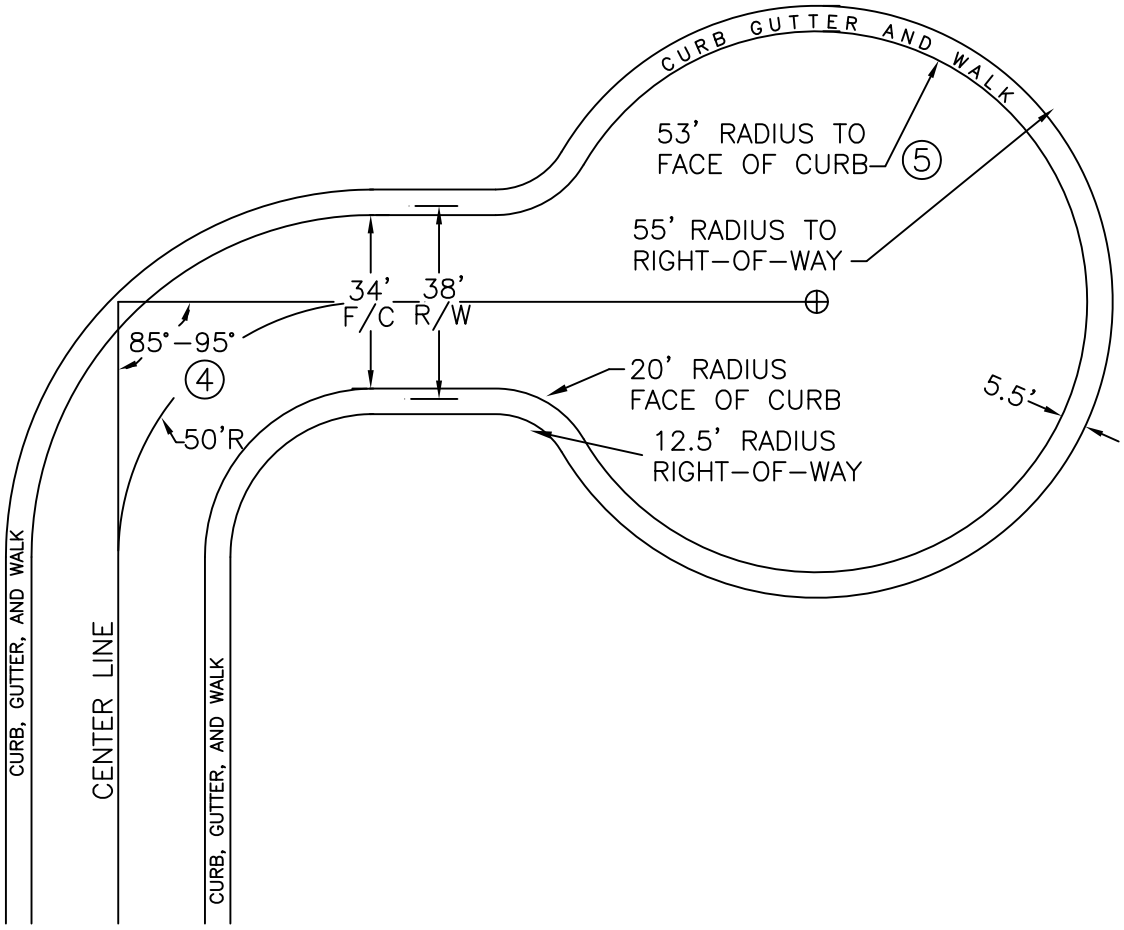
SEPTEMBER 26, 2013

BENTON CITY

RESIDENTIAL STREETS

DWG #
2–1
SHEET 2 OF 4

S:BCGEN/DETAILS/2-1-2 RES STREETS.DWG



NOTES:

1. SEE SHEET 1 FOR TYPICAL SECTION FOR DEVELOPMENTS APPROVED PRIOR TO 2005

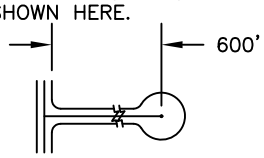
2. SEE SHEET 1 FOR CONSTRUCTION DETAILS NOT SHOWN. SEE SHEET 2 FOR SIDEWALK, IRRIGATION, LANDSCAPE AND EASEMENT REQUIREMENTS FOR DEVELOPMENTS APPROVED IN 2005 AND LATER.

3. FOR COMMERCIAL STREETS, SEE STANDARD DWG 2-3 FOR MINIMUM ACCESS STREET TYPICAL SECTION AND WIDTH, OR DWG 2-3 WHEN LARGE TRUCK USAGE CAN BE ANTICIPATED.

4. ON CUL-DE-SAC STREETS, WHERE THE STREET MAKES A 90° (PLUS OR MINUS 5°) TURN, THE MINIMUM CENTERLINE RADIUS SHALL BE 50'. ON ALL OTHER CUL-DE-SAC STREET CURVES, THE MINIMUM CENTERLINE RADIUS SHALL BE 150'. THE MAXIMUM GRADE SHALL NOT EXCEED 12% UNLESS APPROVED BY THE CITY ENGINEER.

5. WHERE THE LENGTH FROM THE EXTENDED MAIN STREET CURB TO END OF CUL-DE-SAC BULB IS LESS THAN 150 FEET, THE BULB CURB RADIUS MAY BE REDUCED TO 45 FEET AND R/W RADIUS TO 47 FEET.

6. THE MAXIMUM CUL-DE-SAC LENGTH IS 600 FEET MEASURED AS SHOWN HERE.



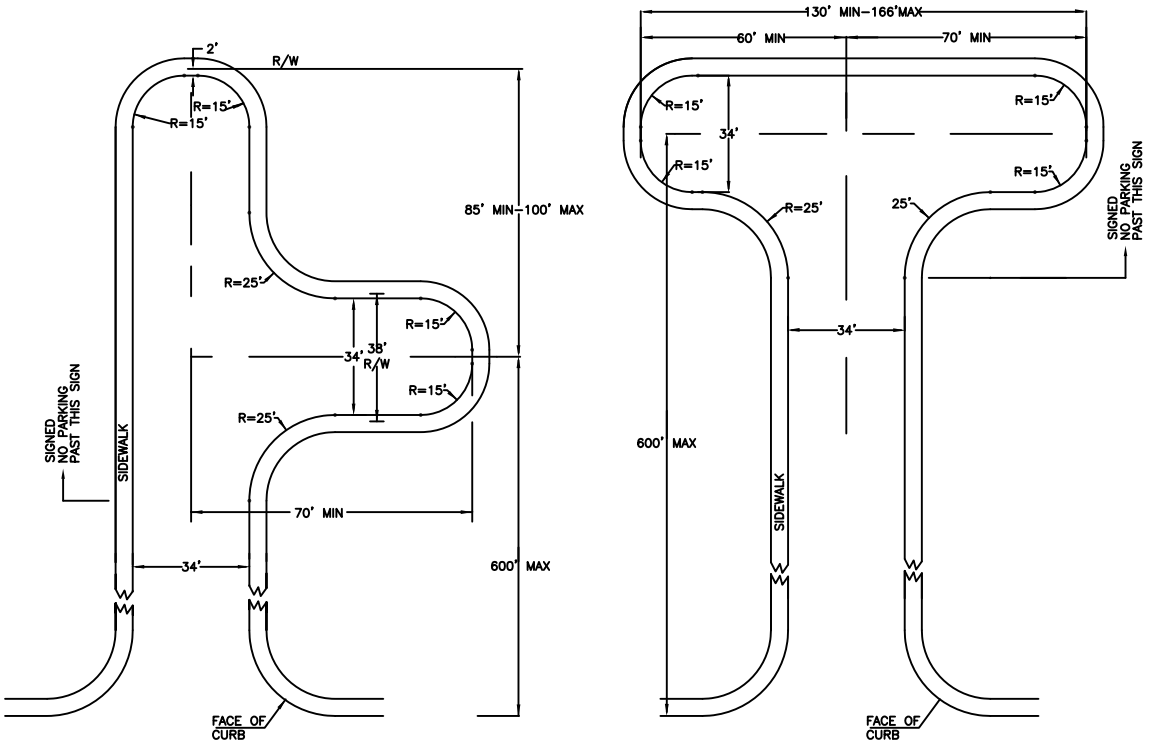
AUGUST 8, 2013

BENTON CITY

RESIDENTIAL STREETS

DWG # 2-1

S:BCGEN/DETAILS/2-1-3 RES STREETS.DWG



NOTES:

With the prior approval of both the City Engineer and Fire Marshal, an alternate turn-around may be used. Approval will be considered only when the following minimum criterias are met.

1. See sheet 1 for typical section for developments approved prior to 2005.
2. See sheet 1 for construction details not shown. See sheet 2 and 3 for right of way, landscape and easement requirements for developments approved in 2005 and later.
3. Must be an in-fill area between developed residential lots where, a full size cul-de-sac would not be practical as determined by the City Engineer and Fire Marshal; or
must be an in-fill area between lots zoned for other than residential use, where a full sized cul-de-sac would not be practical, as determined by the City Engineer and Fire Marshal: and
4. The undeveloped lot must have a maximum lot width of 180 feet; and,
5. The maximum length of the dead end street will be 600 feet.
6. An alternate design, similar to this drawing, may be submitted for consideration of approval by both the City Engineer and Fire Marshal.
7. The turn around area shall be signed for no parking.

ALTERNATE TURN-AROUND

AUGUST 8, 2013

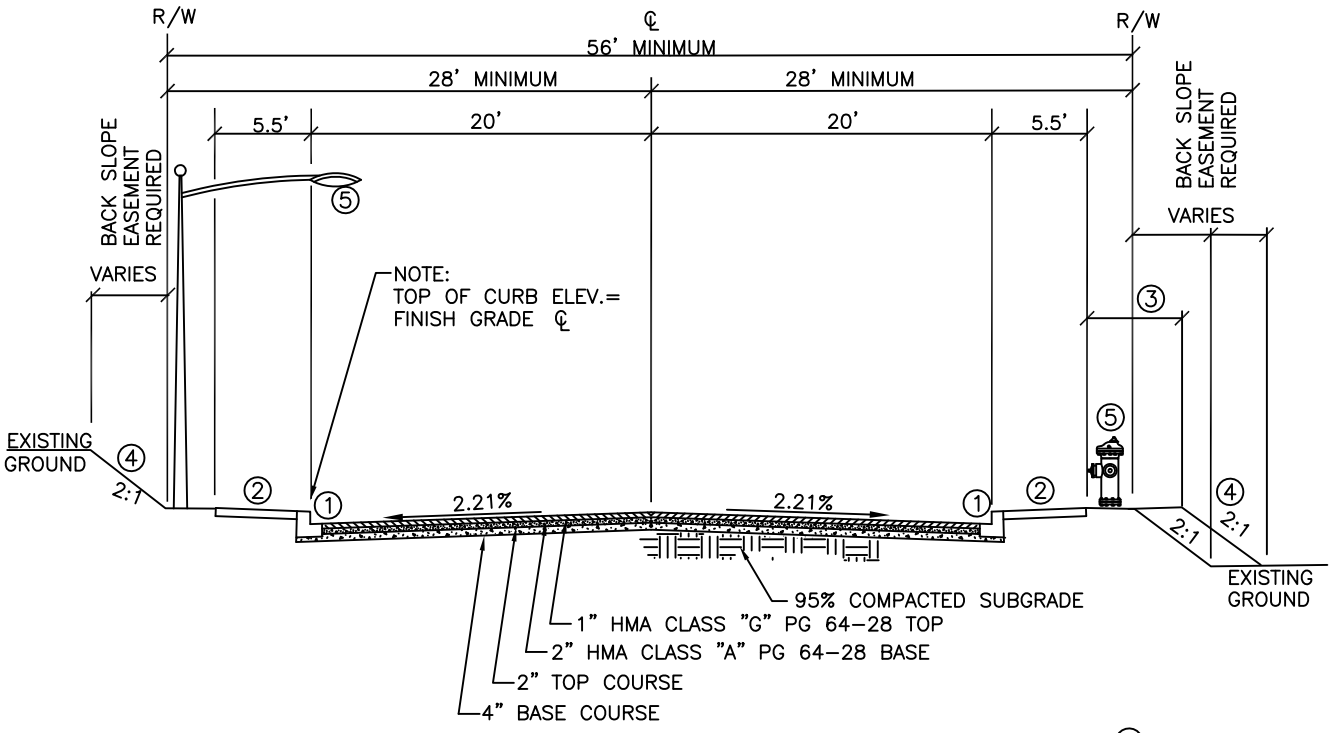
BENTON CITY

RESIDENTIAL STREETS

DWG # 2-1

SHEET 4 OF 4

S:BCGEN/DETAILS/2-1-4 RES STREETS.DWG



NOTES:

① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK

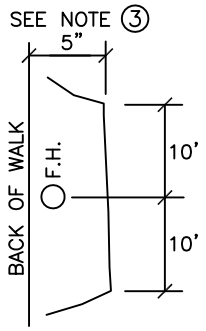
③ MINIMUM 1' FROM BACK OF WALK
AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE
OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)

④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS
DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ SEE STD. DWG. 1-3 FOR HYDRANT AND ST. LIGHT LOCATION

⑥ ON STREET PARKING PROHIBITED

⑦ WHEN THE CITY ENGINEER DETERMINES THAT A LIGHT COMMERCIAL /INDUSTRIAL USE OR DEVELOPMENT WILL REQUIRE LARGE DELIVERY TRUCKS OR USAGE, DWG 2-4 AS DETERMINED BY THE CITY ENGINEER WILL APPLY.



PRIOR TO 2005

SEE SHEET 2 FOR DEVELOPMENTS APPROVED AFTER JANUARY 1, 2005

AUGUST 8, 2013

BENTON CITY

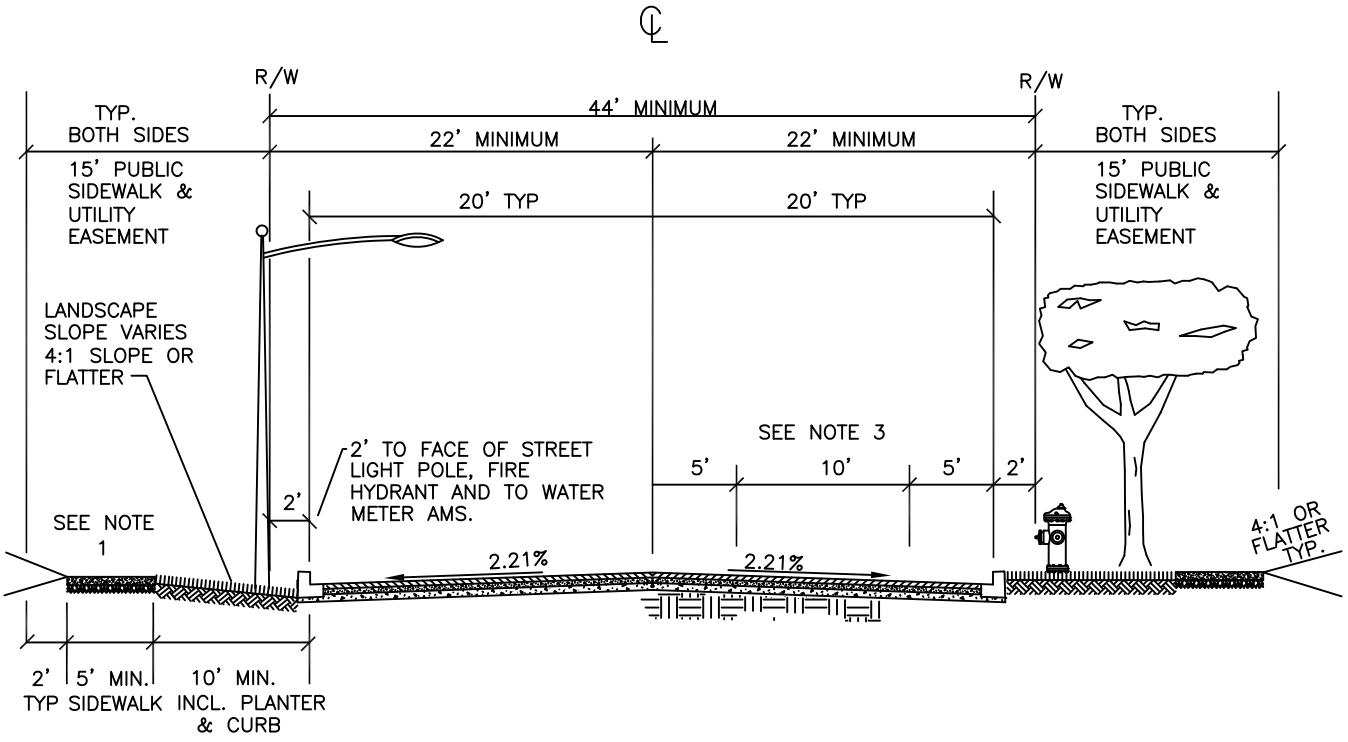
3 LANE/COLLECTOR STREET

LIGHT DENSITY COMMERCIAL/ INDUSTRIAL STREETS

DWG # 2-2

SHEET 1 OF 2

S:BCGEN/DETAILS/2-2-1 COLLECTOR.DWG



NOTES:

1. **SIDEWALK AND DRIVEWAY CONSTRUCTION.** IN CONJUNCTION WITH THE STREET DESIGN, THE DESIGNER WILL INCLUDE A SIDEWALK PROFILE, IF THE GRADE OF THE SIDEWALK WILL DIFFER FROM A DESIGNATED STANDARD VERTICAL OFFSET FROM THE CURB. ALL ADA CURB RAMPS SHALL BE SLOPED AT 12:1 OR FLATTER. ON ALL RESIDENTAIL DEVELOPMENTS AND WHEN REQUIRED BY THE PLANNING REVIEW ON COMMERCIAL DEVELOPMENTS, THE DEVELOPER WILL BE REQUIRED TO CONSTRUCT ALL SIDEWALKS.
2. **PLANTING AREA.** LANDSCAPE ELEMENTS, IRRIGATION SYSTEM, PLANT MATERIALS, AND STREET TREES SHALL BE COMPLETED BY THE DEVELOPER AND MAINTAINED BY THE HOME OWNERS ASSOCIATION. IN ABSENCE OF A HOMEOWNERS ASSOCIATION, LANDSCAPING SHALL BE PLANTED AND MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER. ALL IRRIGATION AND LANDSCAPE IMPROVEMENTS SHALL MEET THE APPROVAL OF THE CITY.
3. TYPICAL LANE WIDTHS SHOWN, SUBJECT TO TRAFFIC ENGINEER REVIEW.
4. FOR CONSTRUCTION NOTES AND DETAILS NOT SHOWN, SEE SHEET 1.

2005 AND NEWER

SEE SHEET 1 FOR DEVELOPMENTS APPROVED PRIOR TO JANUARY 1, 2005

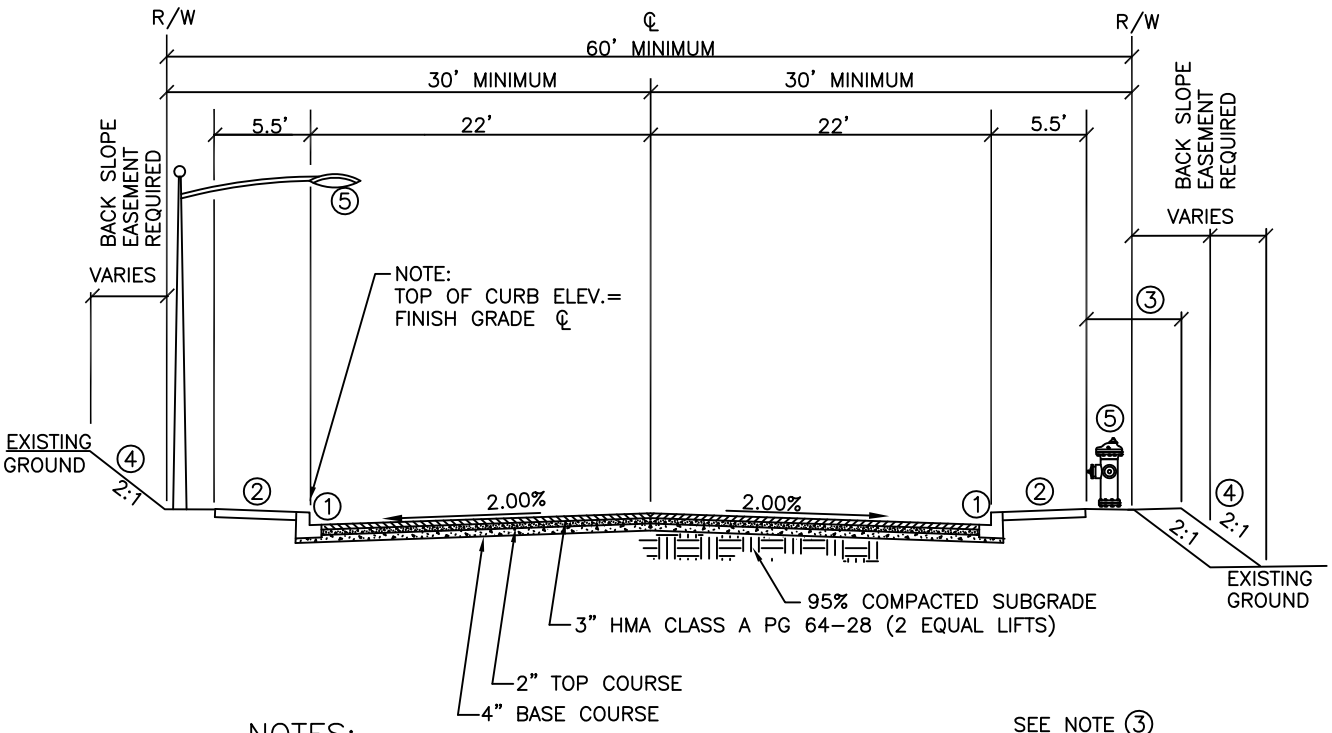
AUGUST 8, 2013

BENTON CITY

COLLECTOR STREET

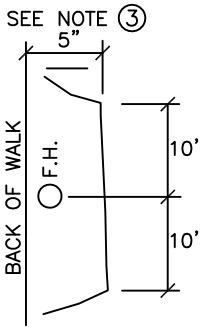
DWG #
2-2
SHEET 2 OF 2

S:BCGEN/DETAILS/2-2-2 COLLECTOR.DWG



NOTES:

1. CONCRETE CURB & GUTTER
2. CONCRETE SIDEWALK
3. MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)
4. SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS
5. SEE STD. DWG. 1-3 FOR HYDRANT AND ST. LIGHT LOCATION
6. ON STREET PARKING PROHIBITED
7. WHEN THE CITY ENGINEER DETERMINES THAT A COMMERCIAL INDUSTRIAL USE OR DEVELOPMENT WILL NOT REQUIRE LARGE DELIVERY TRUCKS OR USAGE, DWG 2-3 MAY APPLY. SEE DWG 2-4 FOR HEAVY COMMERCIAL AND WHERE LARGE TRUCKS OR HEAVY TRAFFIC USAGE OF INDUSTRIAL AREAS WILL APPLY.



(PRIOR TO 2005)

SEE SHEET 2 FOR DEVELOPMENTS APPROVED AFTER JANUARY 1, 2005

AUGUST 8, 2013

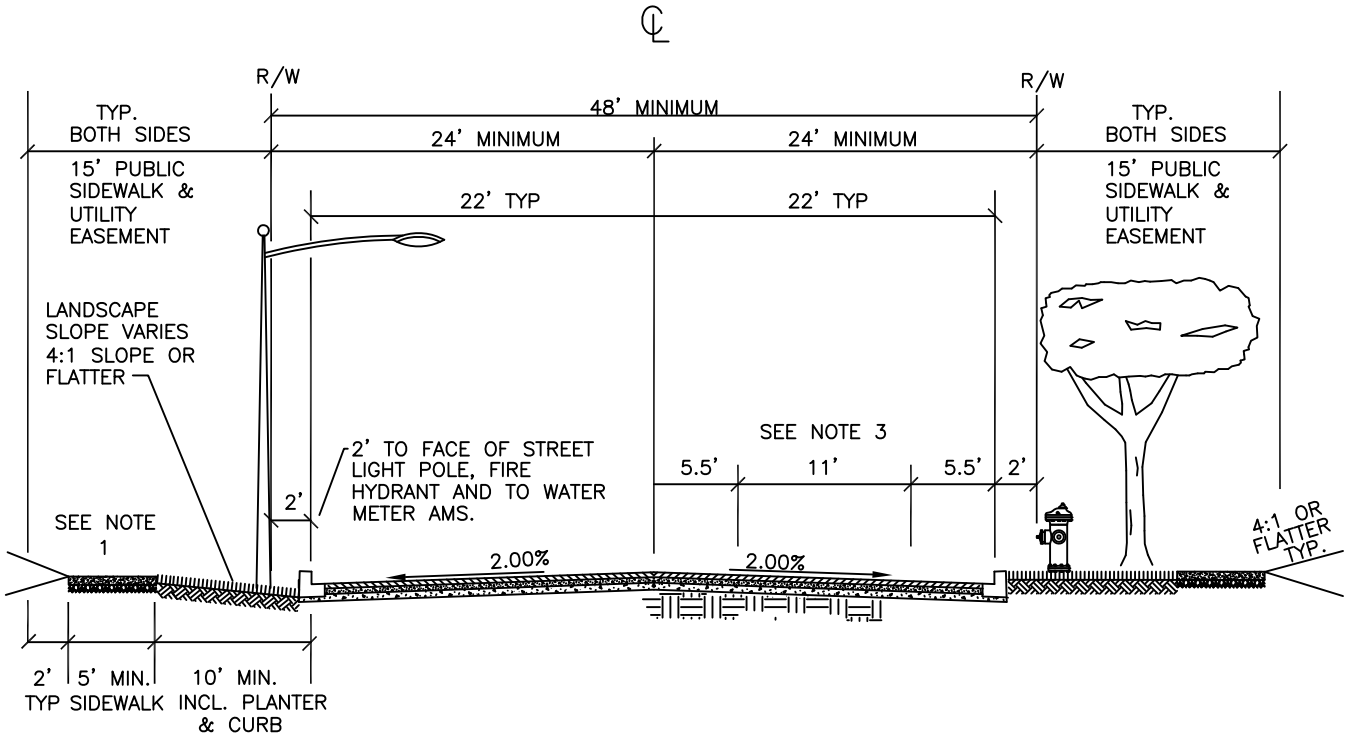
BENTON CITY

MAJOR COLLECTOR STREET

DWG # 2-3

SHEET 1 OF 2

S:BCGEN/DETAILS/2-3-1 MAJOR COLLECTOR.DWG



NOTES:

1. SIDEWALK AND DRIVEWAY CONSTRUCTION: IN CONJUNCTION WITH THE STREET DESIGN, THE DESIGNER WILL INCLUDE A SIDEWALK PROFILE, IF THE GRADE OF THE SIDEWALK WILL DIFFER FROM A DESIGNATED STANDARD VERTICAL OFFSET FROM THE CURB. ALL ADA CURB RAMPS SHALL BE SLOPED AT 12:1 OR FLATTER. ON ALL RESIDENTIAL DEVELOPMENTS AND WHEN REQUIRED BY THE PLANNING REVIEW ON COMMERCIAL DEVELOPMENTS, THE DEVELOPER WILL BE REQUIRED TO CONSTRUCT ALL SIDEWALKS.

2. PLANTING AREA: LANDSCAPE ELEMENTS, IRRIGATION SYSTEM, PLANT MATERIALS, AND STREET TREES SHALL BE COMPLETED BY THE DEVELOPER AND MAINTAINED BY THE HOME OWNERS ASSOCIATION. IN ABSENCE OF A HOMEOWNERS ASSOCIATION, LANDSCAPING SHALL BE PLANTED AND MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER. ALL IRRIGATION AND LANDSCAPE IMPROVEMENTS SHALL MEET THE APPROVAL OF THE CITY.

3. TYPICAL LANE WIDTHS SHOWN, SUBJECT TO TRAFFIC ENGINEER REVIEW.

4. FOR CONSTRUCTION NOTES AND DETAILS NOT SHOWN, SEE SHEET 1.

(2005 & NEWER)

SEE SHEET 1 FOR DEVELOPMENTS APPROVED PRIOR TO JANUARY 1, 2005

AUGUST 8, 2013

BENTON CITY

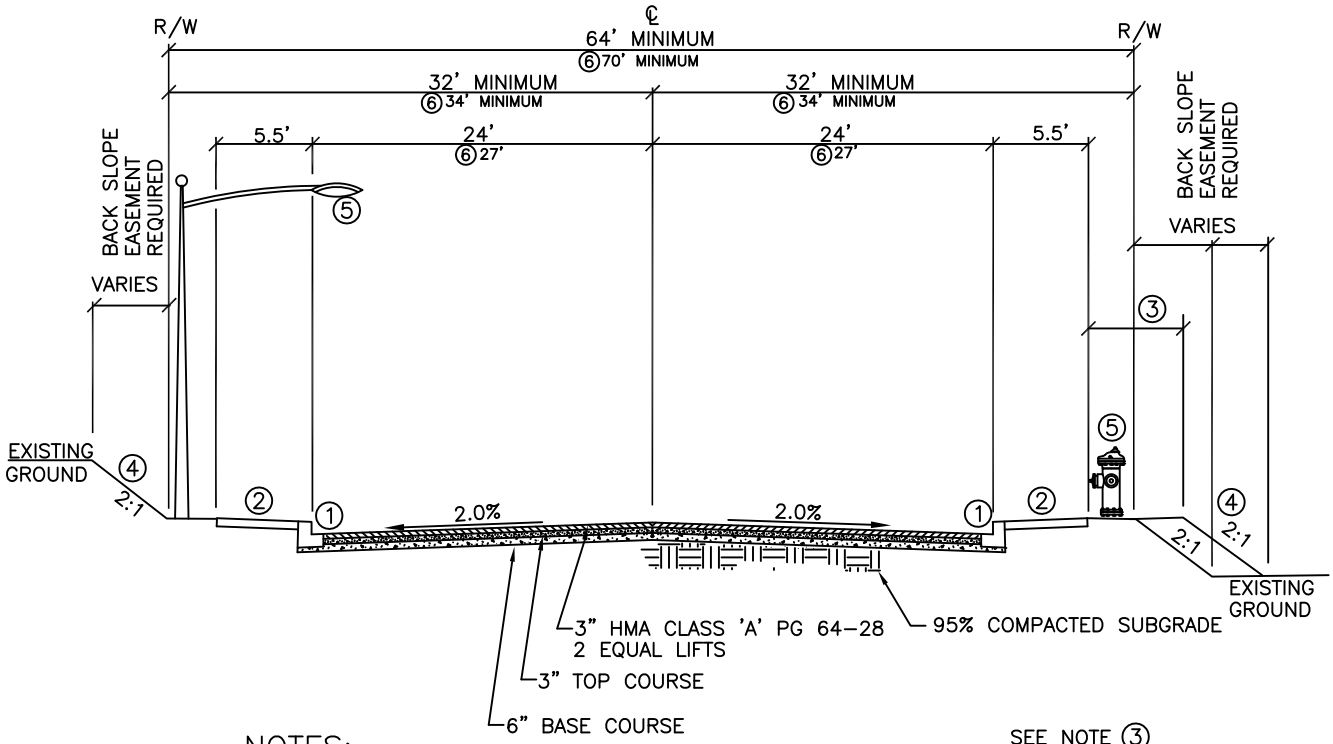
MAJOR COLLECTOR STREET

DWG #

2-3

SHEET 2 OF 2

S:BCGEN/DETAILS/2-3-2 MAJOR COLLECTOR.DWG



NOTES:

① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK

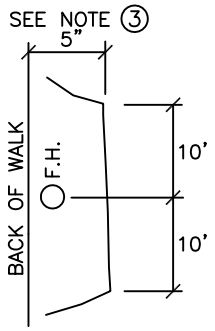
③ MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)

④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ SEE STD. DWG. 1-3 FOR HYDRANT AND ST. LIGHT LOCATION

⑥ WHEN REQUIRED BY THE CITY ENGINEER, AND WHEN THE ARTERIAL IS ON A DESIGNATED BIKE ROUTE, INCREASE WIDTHS AS INDICATED. (4-11' LANES AND 2-5' BIKE PATHS)

⑦ ON STREET PARKING PROHIBITED



PRIOR TO 2005

SEE SHEET 2 FOR DEVELOPMENTS APPROVED AFTER JANUARY 1, 2005

AUGUST 8, 2013

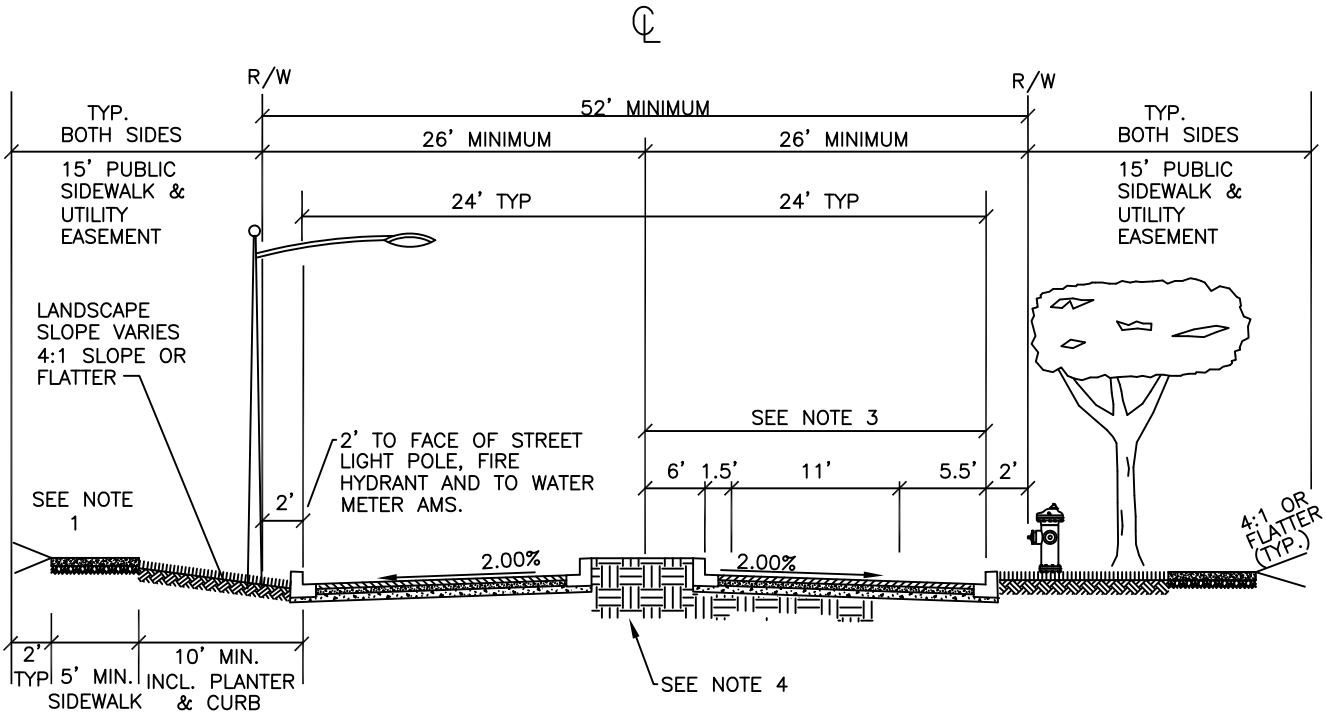
BENTON CITY

MINOR ARTERIAL

DWG # 2-4

SHEET 1 OF 2

S:BCGEN/DETAILS/2-4-1 MINOR ARTERIAL.DWG



NOTES:

1. **SIDEWALK CONSTRUCTION.** IN CONJUNCTION WITH THE STREET DESIGN, THE DESIGNER WILL INCLUDE A SIDEWALK PROFILE, IF THE GRADE OF THE SIDEWALK WILL DIFFER FROM A DESIGNATED STANDARD VERTICAL OFFSET FROM THE CURB. ALL ADA CURB RAMPS SHALL BE SLOPED AT 12:1 OR FLATTER. THE LAND DEVELOPER, OR BUILDER, AS DESIGNATED BY THE DEVELOPMENT APPROVAL, WILL BE REQUIRED TO PROVIDE ELEVATION CONTROL AND CONSTRUCT THE SIDEWALK TO THE APPROVED SIDEWALK DESIGN GRADE.
2. **PLANTING AREA.** LANDSCAPE ELEMENTS, IRRIGATION SYSTEM, PLANT MATERIALS, AND STREET TREES SHALL BE COMPLETED BY THE LAND DEVELOPER AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. IN ABSENCE OF A HOMEOWNERS ASSOCIATION. LANDSCAPING SHALL BE PLANTED AND MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER. ALL IRRIGATION AND LANDSCAPE IMPROVEMENTS SHALL MEET THE APPROVAL OF THE CITY.
3. TYPICAL LANE WIDTHS SHOWN, SUBJECT TO TRAFFIC ENGINEER REVIEW.
4. **RAISED MEDIAN.** A RAISED MEDIAN WITH XERISCAPE LANDSCAPING AND A WATER EFFICIENT IRRIGATION SYSTEM SHALL BE PROVIDED. ALTERNATIVES MAY BE CONSIDERED DURING THE DEVELOPMENT AND PLAN REVIEW PROCESS. MEDIAN BREAKS WILL NORMALLY BE PROVIDED FOR INTERSECTING PUBLIC STREETS AND HIGH VOLUME COMMERCIAL, INDUSTRIAL OR BUSINESS ACCESSESS AS DETERMINED BY THE TRAFFIC ENGINEER.
5. FOR CONSTRUCTION NOTES AND DETAILS NOT SHOWN, SEE SHEET 1.

2005 AND NEWER

SEE SHEET 1 FOR DEVELOPMENTS APPROVED PRIOR TO JANUARY 1, 2005

AUGUST 8, 2013

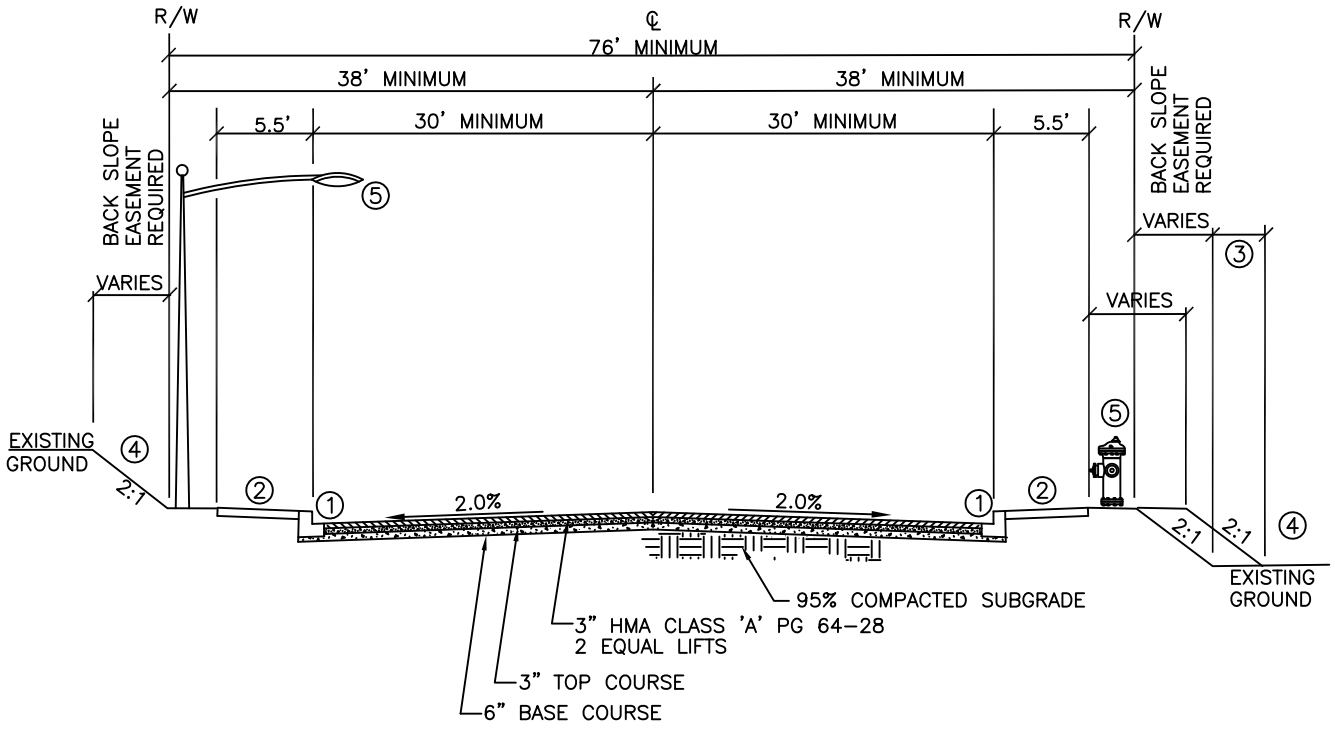
BENTON CITY

MINOR ARTERIAL

DWG # 2-4

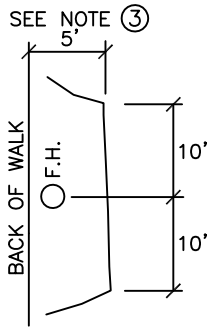
SHEET 2 OF 2

S:BCGEN/DETAILS/2-4-2 MINOR ARTERIAL.DWG



NOTES:

1. CONCRETE CURB & GUTTER
2. CONCRETE SIDEWALK
3. MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)
4. SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS
5. SEE STD. DWG. 1-3 FOR HYDRANT AND ST. LIGHT LOCATION
6. WHEN REQUIRED BY THE CITY ENGINEER, AND WHEN THE ARTERIAL IS ON A DESIGNATED BIKE ROUTE, INCREASE WIDTHS AS REQUIRED TO PROVIDE (5-11' LANES AND 2-5' BIKE PATHS)
7. ON STREET PARKING PROHIBITED



PRIOR TO 2005

SEE SHEET 2 FOR DEVELOPMENTS APPROVED AFTER JANUARY 1, 2005

AUGUST 8, 2013

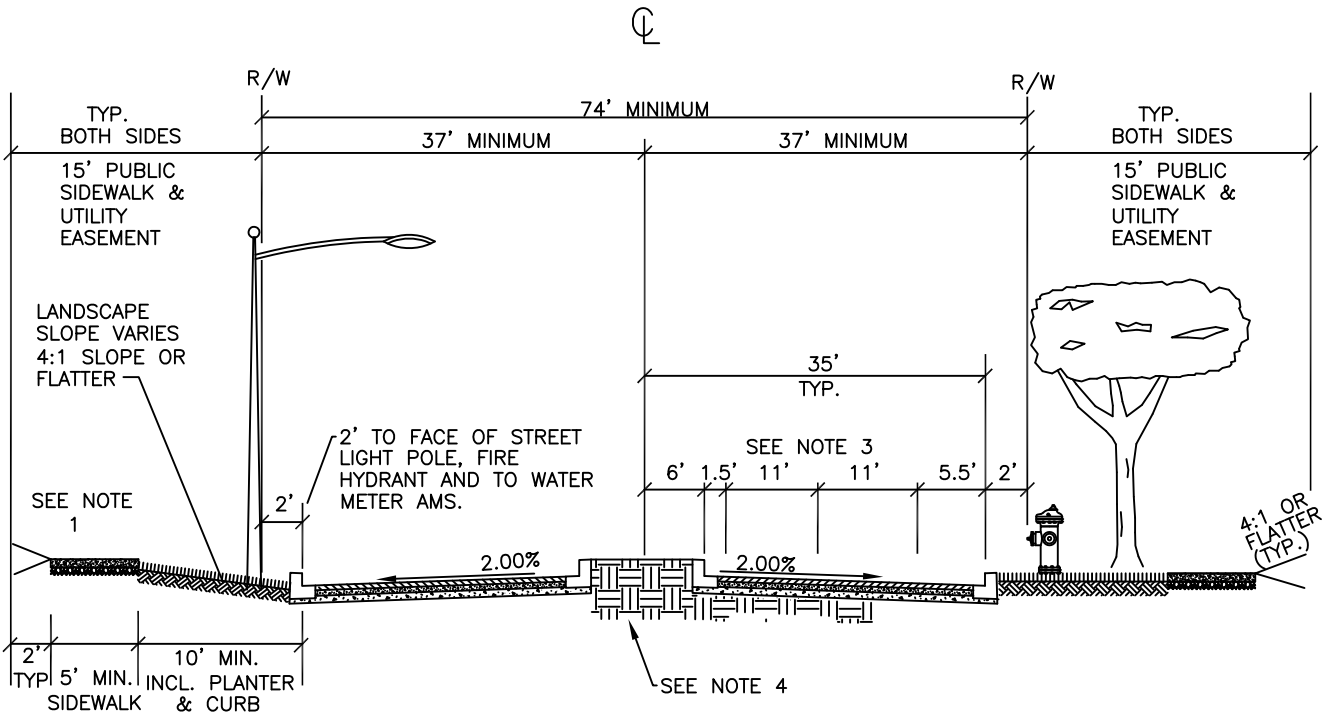
BENTON CITY

PRINCIPAL ARTERIAL

DWG # 2-5

SHEET 1 OF 2

S:BCGEN/DETAILS/2-5-1 PRINCIPAL ARTERIAL.DWG



NOTES:

1. **SIDEWALK CONSTRUCTION.** IN CONJUNCTION WITH THE STREET DESIGN, THE DESIGNER WILL INCLUDE A SIDEWALK PROFILE, IF THE GRADE OF THE SIDEWALK WILL DIFFER FROM A DESIGNATED STANDARD VERTICAL OFFSET FROM THE CURB. ALL ADA CURB RAMPS SHALL BE SLOPED AT 12:1 OR FLATTER. THE LAND DEVELOPER, OR BUILDER, AS DESIGNATED BY THE DEVELOPMENT APPROVAL, WILL BE REQUIRED TO PROVIDE ELEVATION CONTROL AND CONSTRUCT THE SIDEWALK TO THE APPROVED SIDEWALK DESIGN GRADE.
2. **PLANTING AREA.** LANDSCAPE ELEMENTS, IRRIGATION SYSTEM, PLANT MATERIALS, AND STREET TREES SHALL BE COMPLETED BY THE LAND DEVELOPER AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. IN ABSENCE OF A HOMEOWNERS ASSOCIATION. LANDSCAPING SHALL BE PLANTED AND MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER. ALL IRRIGATION AND LANDSCAPE IMPROVEMENTS SHALL MEET THE APPROVAL OF THE CITY.
3. TYPICAL LANE WIDTHS SHOWN, SUBJECT TO TRAFFIC ENGINEER REVIEW.
4. **RAISED MEDIAN.** A RAISED MEDIAN WITH XERISCAPE LANDSCAPING AND A WATER EFFICIENT IRRIGATION SYSTEM SHALL BE PROVIDED. ALTERNATIVES MAY BE CONSIDERED DURING THE DEVELOPMENT AND PLAN REVIEW PROCESS. MEDIAN BREAKS WILL NORMALLY BE PROVIDED FOR INTERSECTING PUBLIC STREETS AND HIGH VOLUME COMMERCIAL, INDUSTRIAL OR BUSINESS ACCESSESS AS DETERMINED BY THE TRAFFIC ENGINEER.
5. FOR CONSTRUCTION NOTES AND DETAILS NOT SHOWN, SEE SHEET 1.

2005 AND NEWER

SEE SHEET 1 FOR DEVELOPMENTS APPROVED PRIOR TO JANUARY 1, 2005

AUGUST 8, 2013

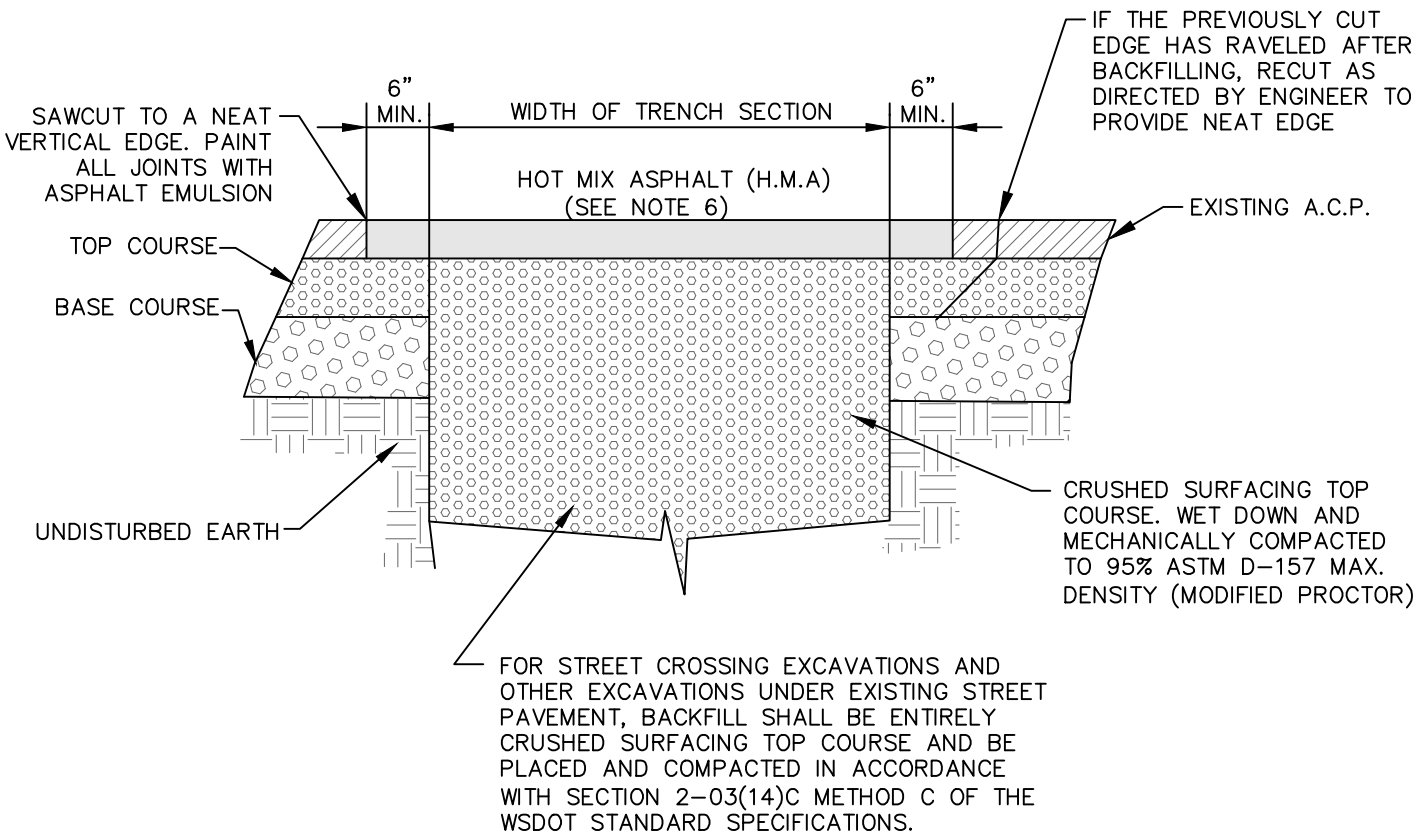
BENTON CITY

PRINCIPAL ARTERIAL

DWG # 2-5

SHEET 2 OF 2

S:BCGEN/DETAILS/2-5-2 PRINCIPAL ARTERIAL.DWG



NOTES:

1. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED AND APPROVED BY THE CITY ENGINEER OR CITY REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.
2. DO NOT BEGIN STREET EXCAVATION UNTIL COMPACTION EQUIPMENT IS ON SITE.
3. DO NOT BEGIN STREET EXCAVATION UNTIL WATER (TRUCK OR HOSE) IS ON SITE.
4. VERTICAL PAVEMENT CUT LINE MAY BE MOVED BACK AWAY FROM TRENCH SECTION AS DEEMED NECESSARY BY CITY ENGINEER OR CITY REPRESENTATIVE.
5. IF PERMANENT PATCH CANNOT BE IMMEDIATELY PLACED, AND IF DIRECTED BY THE ENGINEER, A TEMPORARY COLD MIX PATCH SHALL BE REQUIRED. THE COLD MIX PATCH SHALL BE REMOVED AND A PERMANENT PATCH PLACED AS SOON AS CONSTRUCTION AND WEATHER CONDITIONS PERMIT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. THE COMPACTED DEPTH OF THE ASPHALT PATCH SHALL MATCH EXISTING DEPTH, BUT AT A MINIMUM BE TWO INCHES (2") DEEP ON ALL RESIDENTIAL ACCESS STREETS, THREE INCHES (3") DEEP ON ALL COMMERCIAL AND ARTERIALS, AND SIX INCHES (6") DEEP ON 9TH STREET (S.R. 225). MAXIMUM DEPTH OF HMA LIFTS SHALL BE IN ACCORDANCE WITH SECTION 5-04.3(9) OF THE WSDOT STANDARD SPECIFICATIONS. COMPACTION SHALL BE A MINIMUM OF 91% OF THE REFERENCE MAXIMUM DENSITY AS DETERMINED BY WSDOT FOP FOR AASHTO T 209.
7. ALL CONSTRUCTION TO MEET THE CURRENT EDITION OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

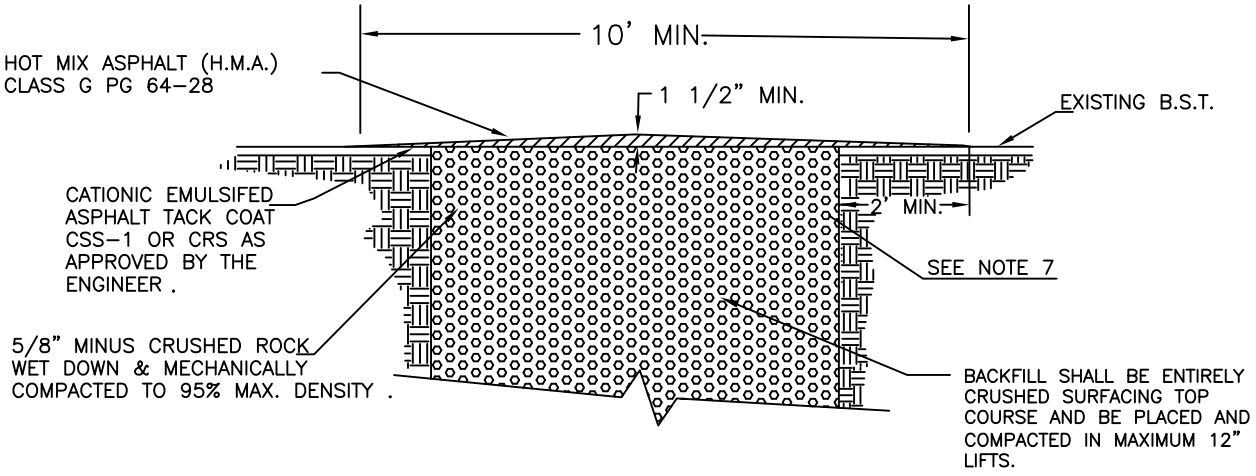
JUNE 3, 2015

BENTON CITY

TYPICAL TRENCH BACKFILL AND PAVEMENT RESTORATION

DWG # 2-6

S:\4-AutoCAD Drawings\BENTON CITY GENERAL\STD DETAILS\2-6 TRENCH RESTORE.dwg



HOT MIX ASPHALT PAVEMENT REQUIREMENTS

ALL PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH SECTION 4 OF CITY OF BENTON CITY STANDARD SPECIFICATIONS

NOTES:

1) ALL ROADWAY APPURTENANCES, INCLUDING SIGNS, ARE TO REMAIN IN PLACE AND TO BE PROTECTED. ONE-WAY TRAFFIC IS TO BE MAINTAINED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONTRACTOR SHALL INSTALL TEMPORARY LANE STRIPING AS PER SWSS. 5-04.3(17) WHERE DIRECTED BY THE ENGINEER.

2) DO NOT BEGIN STREET CUT UNTIL COMPACTION EQUIPMENT IS ON SITE

3) DO NOT BEGIN STREET CUT UNTIL WATER (TRUCK OR HOSE) IS ON SITE

4) WATER SETTLING PERMITTED ONLY WITH APPROVAL OF THE ENGINEER

5) IF PERMANENT PATCH CANNOT BE PLACED WITHIN 48 HOURS OF PROJECT COMPLETION, AND IF IN THE OPINION OF THE ENGINEER, CONSTRUCTION AND TRAFFIC CONDITIONS WARRANT, A TEMPORARY COLD MIX PATCH SHALL BE PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OPERATIONS. THE COLD MIX PATCH SHALL BE REMOVED AND A PERMANENT PATCH PLACED AS SOON AS CONSTRUCTION AND WEATHER CONDITIONS PERMIT, UNLESS STATED OTHERWISE IN THE SPECIAL PROVISIONS, OR DIRECTED BY THE ENGINEER

6) ROCK DEPTH SHALL BE A MINIMUM OF 4" ON ALL STREETS

AUGUST 9, 2013

BENTON CITY

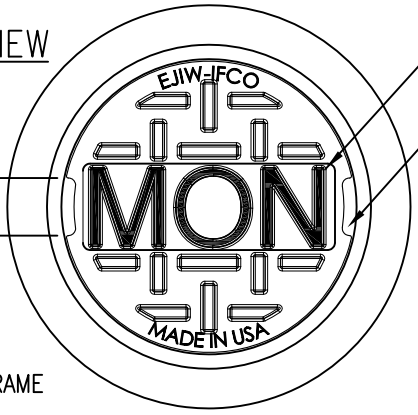
BITUMINOUS SURFACE TREATMENT RESTORATION

DWG #

2-7

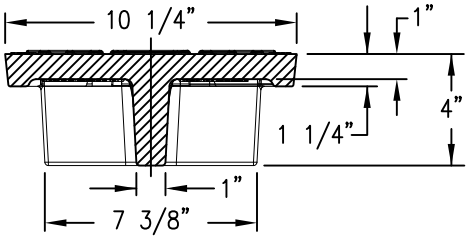
S:BCGEN/DETAILS/2-7 BST RESTORE.DWG

COVER–PLAN VIEW

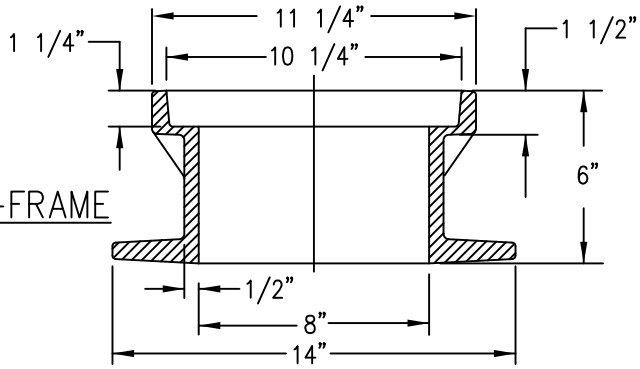


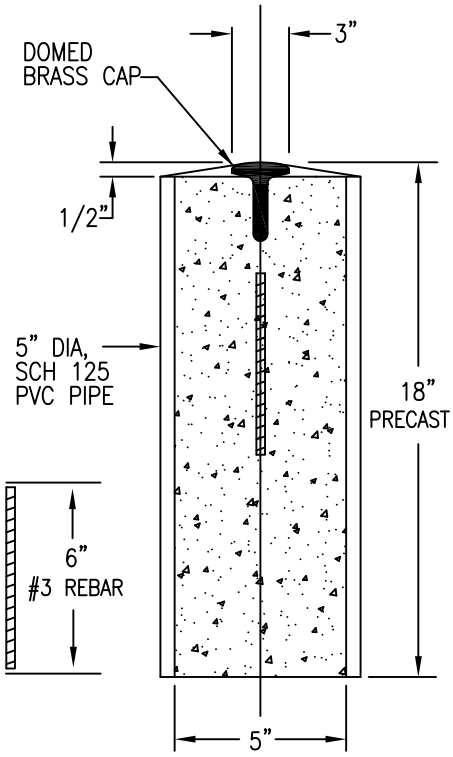
(EAST JORDAN IRON WORKS COVER AND FRAME PRODUCT #00368004)

SECTION–COVER

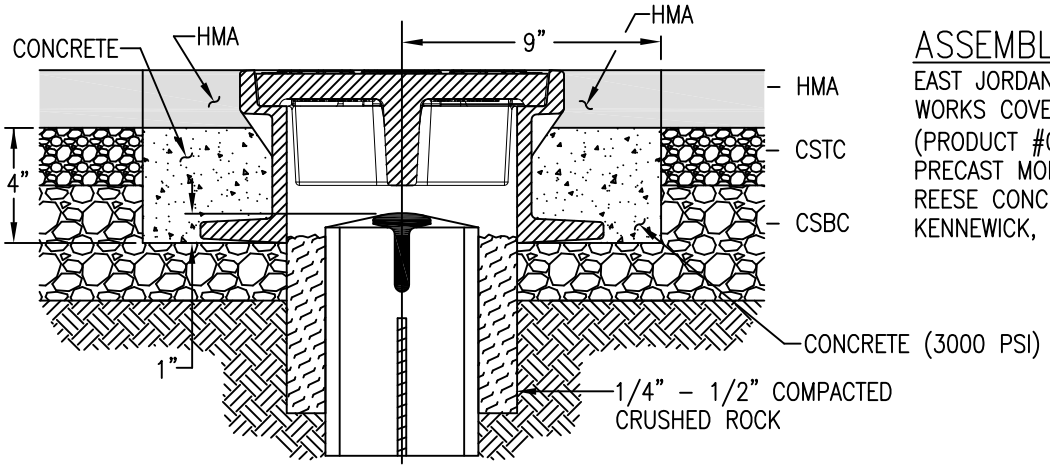


SECTION–FRAME





CONCRETE MONUMENT
(REESE CONCRETE)



ASSEMBLY

EAST JORDAN IRON WORKS COVER AND FRAME (PRODUCT #00368004)
PRECAST MONUMENT
REESE CONCRETE
KENNEWICK, WA

SURVEY MONUMENT

1. MONUMENT TO BE SET AT ALL STREET CENTERLINE CONTROL POINTS.
2. WASHINGTON LICENSED PROFESSIONAL LAND SURVEYOR OR PARTY UNDER THE LICENSED LAND SURVEYOR'S DIRECT SUPERVISION TO REFERENCE MONUMENT LOCATION FOR INSTALLATION AND PUNCH BRASS CAP AFTER INSTALLATION.
3. AT THE CONTRACTORS OPTION, THE CONCRETE MAY BE LEFT 1 1/2" BELOW FINISH GRADE, AND THE TOP FINISHED WITH 1 1/2" HMA GLASS 'G' PG 64–28.

AUGUST 9, 2013

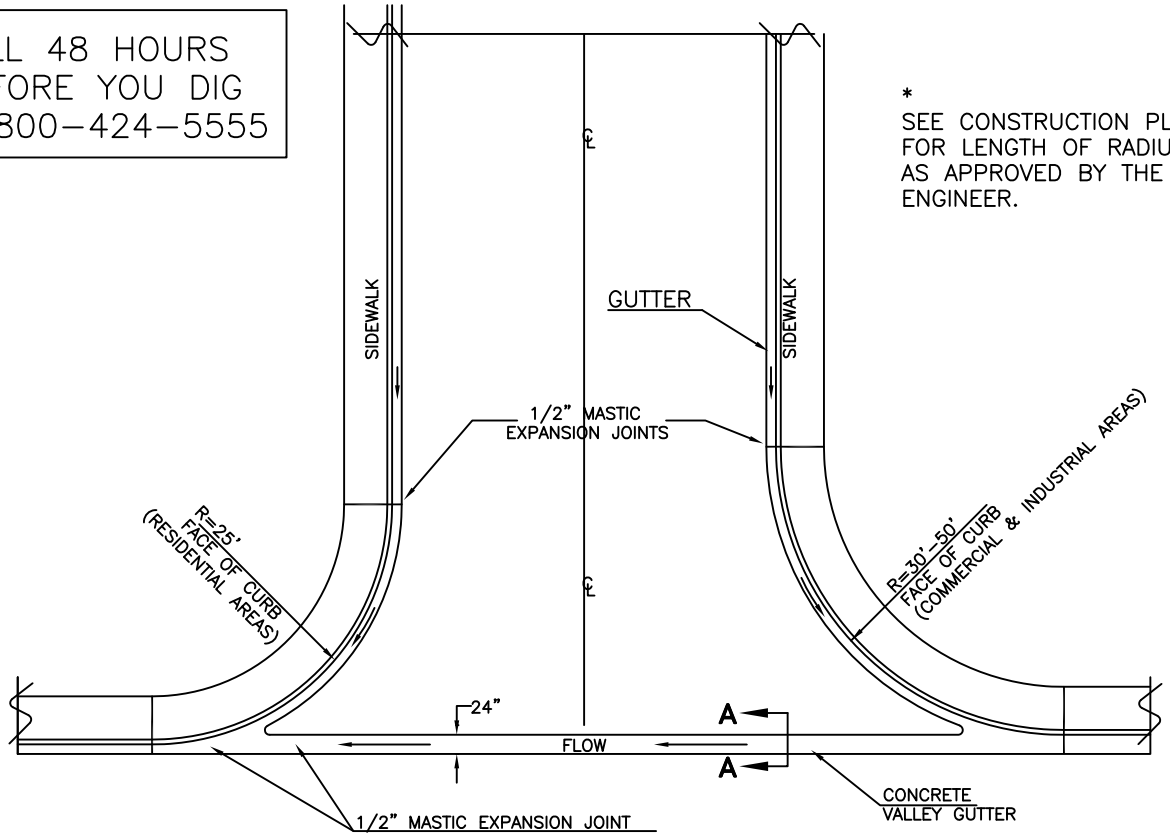
BENTON CITY

SURVEY MONUMENT

DWG # 2–8

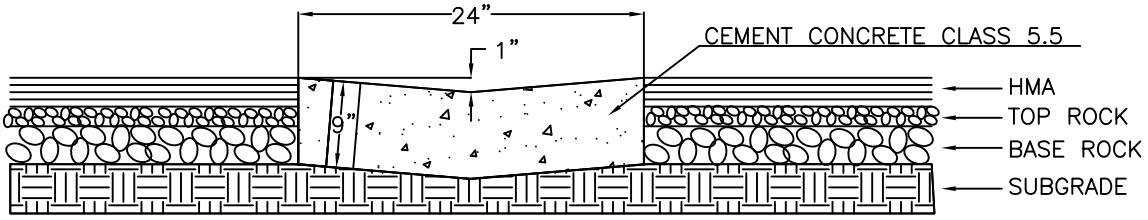
S:BCGEN/DETAILS/2–8 SURVEY MON.DWG

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555



*
SEE CONSTRUCTION PLANS FOR LENGTH OF RADIUS OR AS APPROVED BY THE CITY ENGINEER.

NOTE: SEE CITY OF BENTON CITY STD. DWG. No. 2-12 FOR WHEELCHAIR RAMP DETAILS AND LOCATIONS.



SECTION A-A

NOTE: REQUIRES APPROVAL OF CITY ENGINEER.

AUGUST 9, 2013

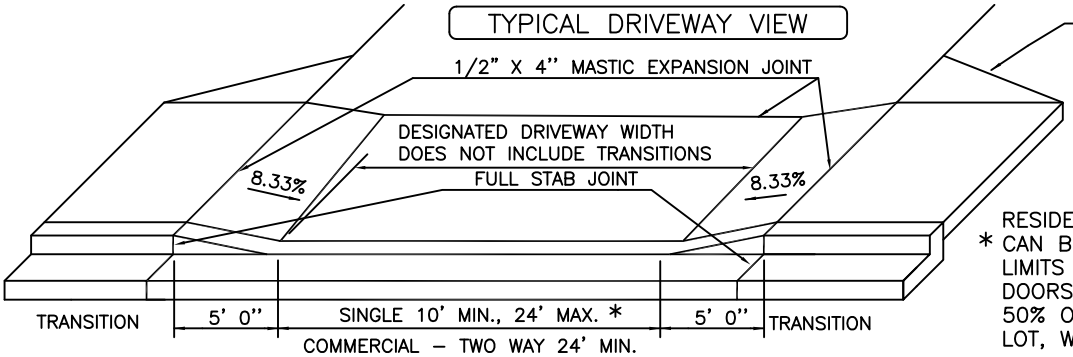
BENTON CITY

CONCRETE VALLEY GUTTER

DWG # 2-9

S:BCGEN/DETAILS/2-9 VALLEY GUTTER.DWG

TYPICAL DRIVEWAY VIEW



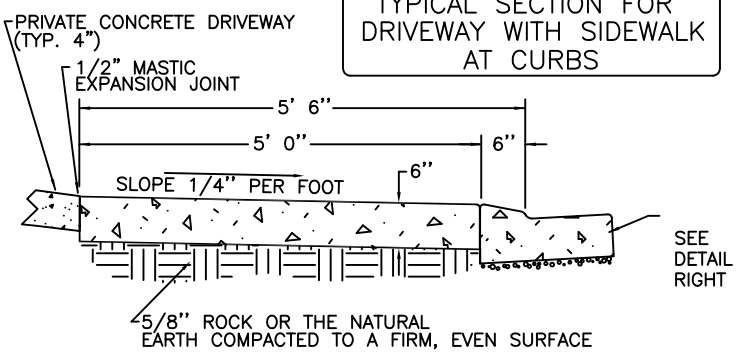
BUILDER TO PROVIDE 3' X 5' TAPER AT DRIVEWAYS, FOR ADA BYPASS

* RESIDENTIAL DRIVEWAY CAN BE WIDENED TO LIMITS OF GARAGE DOORS OR MAXIMUM OF 50% OF FRONTAGE OF LOT, WHICHEVER IS LESS.

COMMERCIAL – TWO WAY 24' MIN.

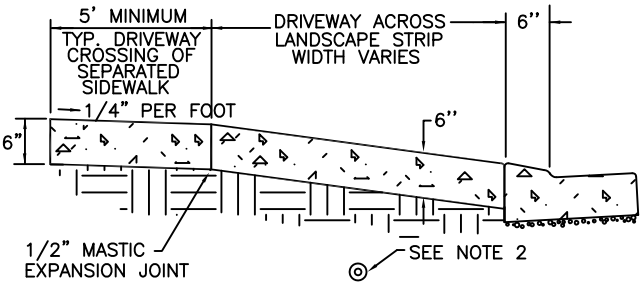
NOTE: WHEN CURB AND WALK ARE POURED MONOLITHIC, PROVIDE DUMMY JOINT AT BACK OF CURB.

TYPICAL SECTION FOR DRIVEWAY WITH SIDEWALK AT CURBS



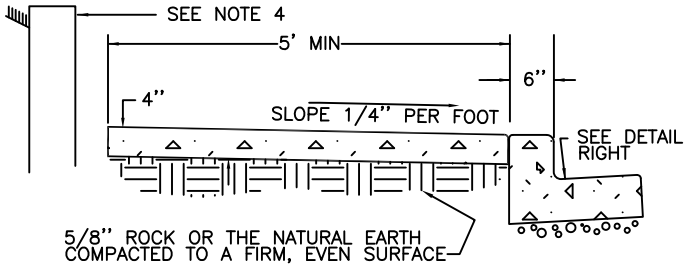
1. DRIVEWAY SIDEWALK DUMMY JOINTS ON 5' CENTERS.
2. 5 SACK CONCRETE (SEE C.O.B.C. STD. DWG. 2–13)
3. 1/2" X 4" MASTIC AT TOP OF TRANSITIONS
4. DROP BACK SIDEWALK ONLY WITH CITY APPROVAL. REQUIRED MINIMUM RISE OF 3 1/2"

TYPICAL SECTION FOR DRIVEWAY WITH SIDEWALK SEPARATED FROM CURB BY LANDSCAPE STRIP



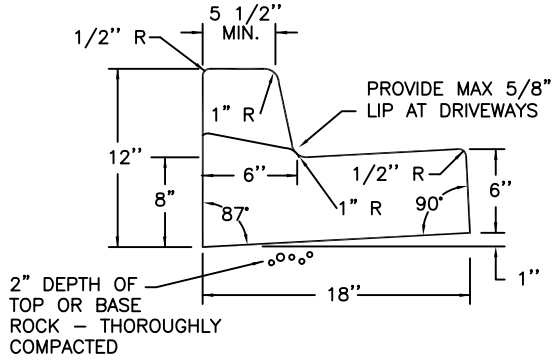
1. FOR LANDSCAPE GRADE, WIDTH AND SIDEWALK LOCATIONS, SEE DRAWINGS 2–1 THROUGH 2–5.
2. IRRIGATION SYSTEMS UNDER CONCRETE DRIVEWAY AND SIDEWALK TO BE PLACED IN CL 160 PVC CONDUIT.

TYPICAL SECTION FOR SIDEWALK @ CURB



1. SIDEWALK DUMMY JOINTS ON 5' CENTERS.
2. 1/2" MASTIC EXPANSION JOINTS EVERY 30' AND AT POINTS OF CURVATURE ON CURB RETURNS.
3. 5 SACK CONCRETE (SEE C.O.B.C. STD. DWG. 2–13).
4. WIDEN SIDEWALK TO MINIMUM 6' WHEN ADJOINING A WALL, OR FENCE.

TYPICAL CURB @ DEPRESSED DRIVEWAY



1. FULL STAB JOINTS ON 10' CENTERS
2. 1/2" MASTIC MATERIAL AT POINTS OF TANGENCY ON ALL CURB RETURNS AND AT ALL POINTS OF TERMINUS.
3. 5 SACK CONCRETE (SEE C.O.B.C. STD. DWG. 2–13).

NOTE: SEE STD. DWG. 2–11 FOR TYPE E–1 VERTICAL FACE CURB & EXTRUDED CURB DETAIL

JULY 25, 2014

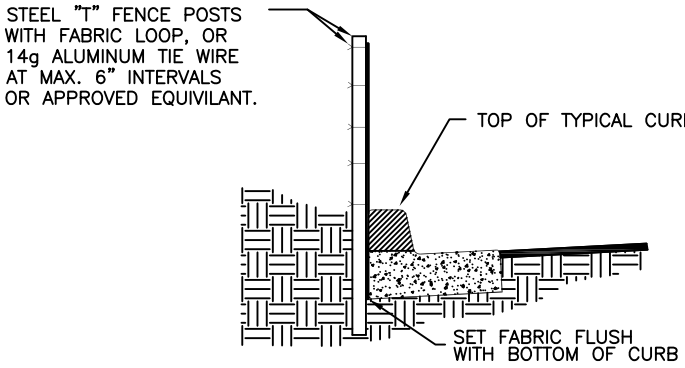
BENTON CITY

CURB, GUTTER, SIDEWALK & DRIVEWAY STANDARD

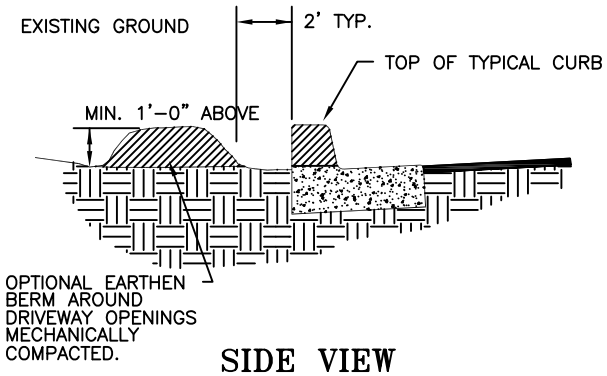
DWG # 2–10

SHEET 1 OF 2

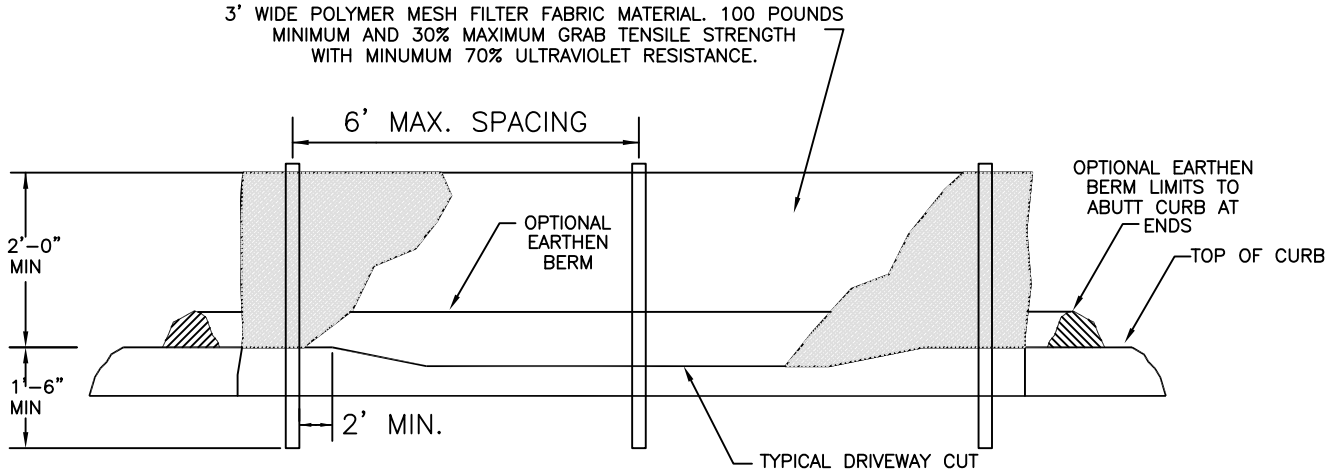
S:BCGEN/DETAILS/2–10–1 CURB.DWG



SIDE VIEW
MESH BARRIER



SIDE VIEW
OPTIONAL EARTHEN BERM



FRONT VIEW

1. WHEN DRIVEWAY CURB CUTS ARE INSTALLED AND NOT USED, OR RELOCATED AT THE TIME OF HOME CONSTRUCTION, THE ABANDONED CURB CUT SHALL BE REMOVED AND RECONSTRUCTED WITH STANDARD CURB AND GUTTER.
2. THE EROSION CONTROL SHALL BE INSTALLED WITHIN FIVE WORK DAYS AFTER COMPLETION OF THE CURB CUT, ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE STATE D.E.Q. PERMIT.
3. BACKFILL CURB AS REQUIRED TO BURY BOTTOM OF FILTER FABRIC FLUSH WITH BOTTOM OF CURB.
4. STEEL "T" FENCE POSTS ARE REQUIRED. WOOD POSTS ARE NOT ACCEPTABLE.
5. COMPACT ALL AREAS OF FILTER FABRIC TRENCH.
6. EARTH BERMS TO BE MECHANICALLY COMPACTED/WHEEL ROLLED.
7. THE BARRIER SHALL ONLY BE REMOVED WHEN THE ACTUAL HOME CONSTRUCTION IS STARTED. DURING CONSTRUCTION OF THE HOME, THE BUILDER SHALL BE FULLY RESPONSIBLE TO CONTROL EROSION AND THE TRACKING OF DIRT AND DEBRIS INTO THE CITY STREET.
8. WHEN THE CONCRETE SIDEWALK PORTION OF THE DRIVEWAY IS CONSTRUCTED IN CONJUNCTION WITH THE STREET CONSTRUCTION, BARRIERS ARE NOT REQUIRED. PROVIDE LOT EROSION CONTROL AS REQUIRED BY THE DEVELOPMENT STATE D.E.Q. PERMIT.
9. CURB CUT PLANS ON FUTURE DEVELOPMENTS MAY BE DENIED IF A DEVELOPER FAILS TO INSTALL AND MAINTAIN THE DESIGNATED EROSION CONTROL, WITHIN THE DESIGNATED TIME OR FAILS TO REASONABLY MAINTAIN THE STREET IN FRONT OF A CONSTRUCTION SITE ONCE THE EROSION BARRIER IS REMOVED.
10. WHEN CONSTRUCTION BEGINS AND THE BARRIER IS REMOVED, A BALLAST ROCK ENTRANCE WILL BE INSTALLED AS REQUIRED BY SECTION 2-27.01.

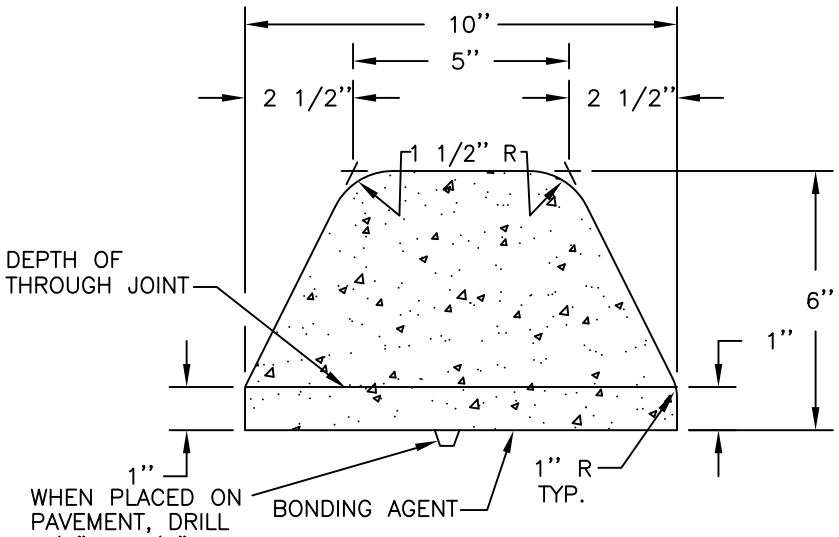
AUGUST 9, 2013

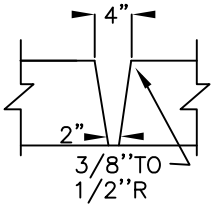
BENTON CITY

CURB CUT & EROSION CONTROL

DWG #
2-10
SHEET 2 OF 2

S:BCGEN/DETAILS/2-10-2 CURB.DWG



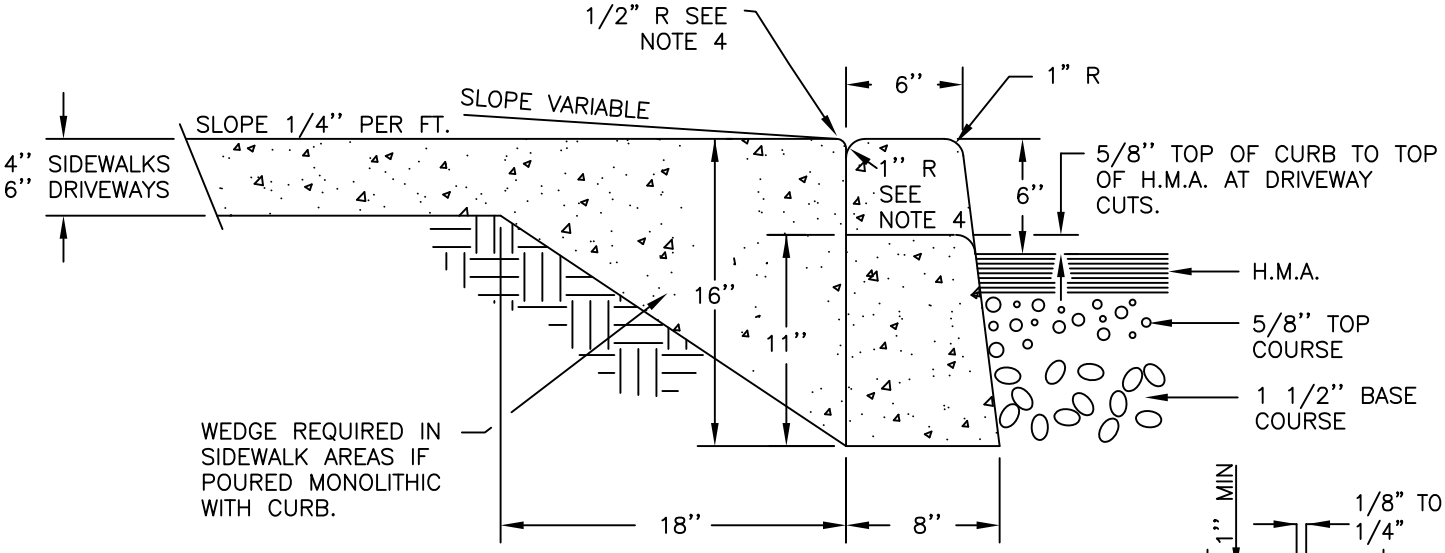


V–JOINT

WHEN REQUIRED TO PASS DRAINAGE, CONSTRUCT 2"–"V" JOINT AT 20' INTERVALS.

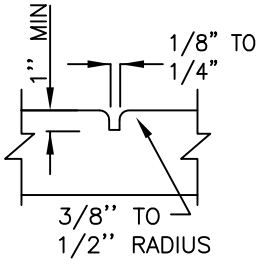
EXTRUDED CEMENT CONCRETE CURB

SEE STANDARDS SECTION 2–23



TYPE E–1 CEMENT CONCRETE CURB

SEE DWG. 2–10 FOR DETAILS NOT SHOWN.



CONTRACTION JOINT

NOTE:

1. CONCRETE SHALL BE CEMENT CONCRETE 5 SACK, SEE DRAWING 2–13.
2. CONTRACTION JOINT SHALL BE 10'–0'' C/C. ALSO SEE NOTE 5.
3. EXPANSION MATERIAL (1/2'' MASTIC) SHALL BE PLACED AT ALL CURB RETURNS.
4. WHEN SIDEWALK IS REQUIRED, POUR MONOLITHIC WITH SCRIBED JOINT. AT BACK OF CURB.
5. WHEN EXTRUDED CURB REQUIRES PASS THROUGH DRAINAGE, CONSTRUCT A "V" JOINT AT 20' INTERVALS.

AUGUST 9, 2013

BENTON CITY

EXTRUDED AND TYPE E–1 CURBING

DWG #

2–11

S:BCGEN/DETAILS/2–11 CURB.DWG

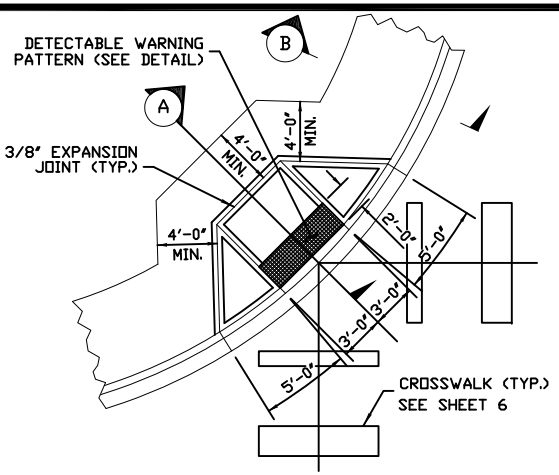
SIDEWALK PEDESTRIAN RAMP TYPES 1A, 1B, 1C & 1D

DWG # 2-12

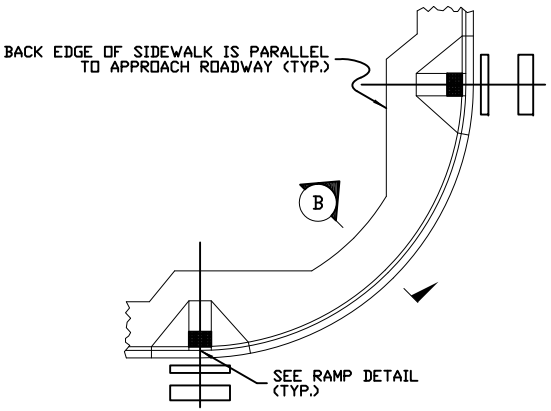
SHEET 1 OF 6

AUGUST 9, 2013

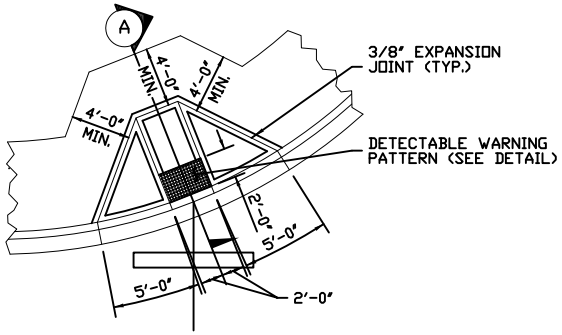
S:\BCGEN\DETAILS\2-12-1 PED RAMP.DWG



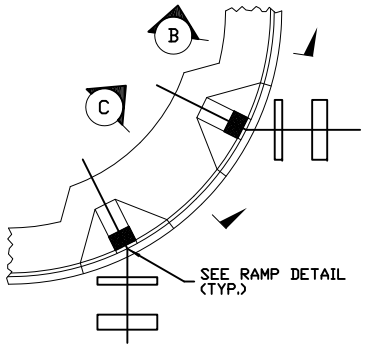
SIDEWALK RAMP TYPE 1A
PLAN



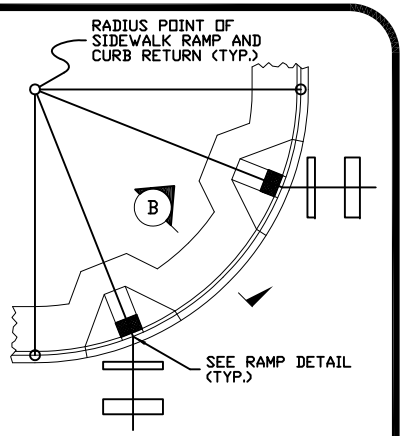
SIDEWALK RAMP TYPE 1D
PLAN



RAMP DETAIL
FOR SIDEWALK RAMP TYPES 1B, 1C, 1D



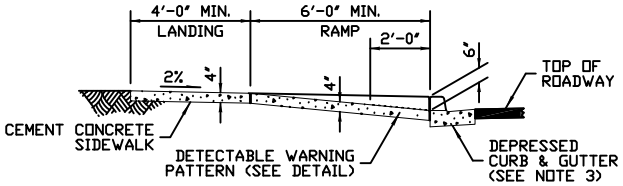
SIDEWALK RAMP TYPE 1B
PLAN



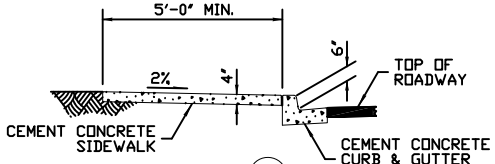
SIDEWALK RAMP TYPE 1C
PLAN

NOTES

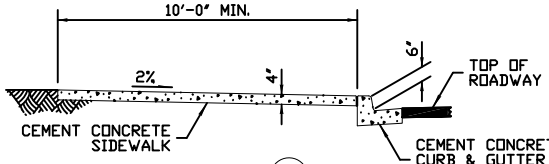
1. Avoid placing drainage structures, junction boxes or other obstructions in front of ramp access areas.
2. Detectable warning patterns per swss section 8-14.3(3)
3. Curb and gutter shown, see the Contract Plans for the curb design specified.
4. The plan views for SIDEWALK RAMP TYPES 1B, 1C & 1D are provided to define each ramp type. See the RAMP DETAIL on this sheet.
5. **RAMP SLOPES SHALL BE SLOPED 12:1 OR FLATTER.**
6. See Sheet 6 for crosswalk striping detail.



SECTION (A)

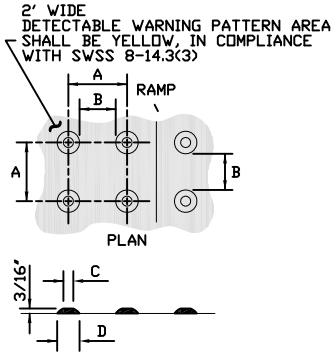


SECTION (B)



SECTION (C)

	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"



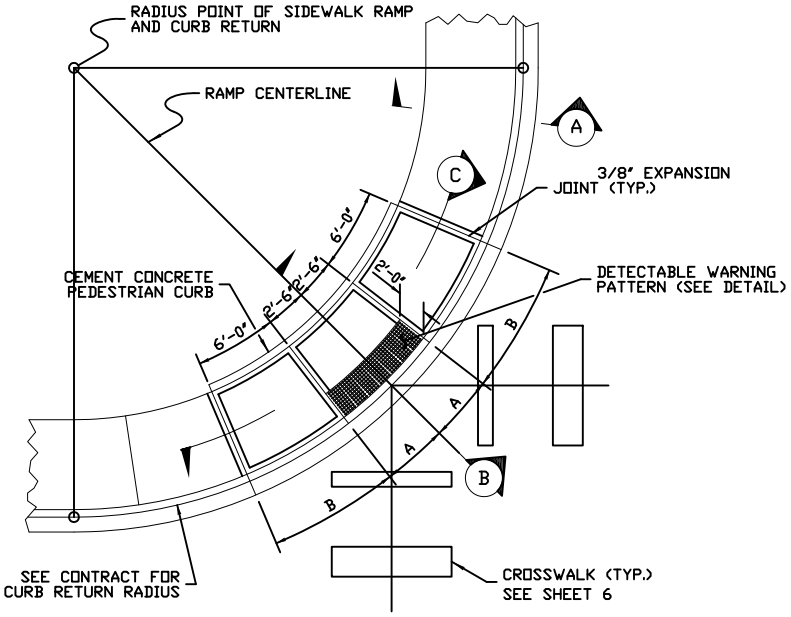
TRUNCATED DOMES (SEE NOTE 2)
DETECTABLE WARNING PATTERN DETAIL

SIDEWALK PEDESTRIAN RAMP
TYPES 2A & 2B

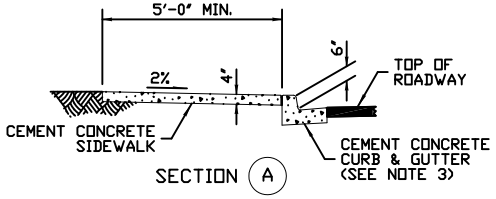
DWG # 2 – 12

SHEET 2 OF 6

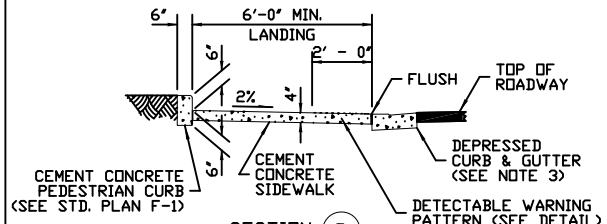
AUGUST 9, 2013



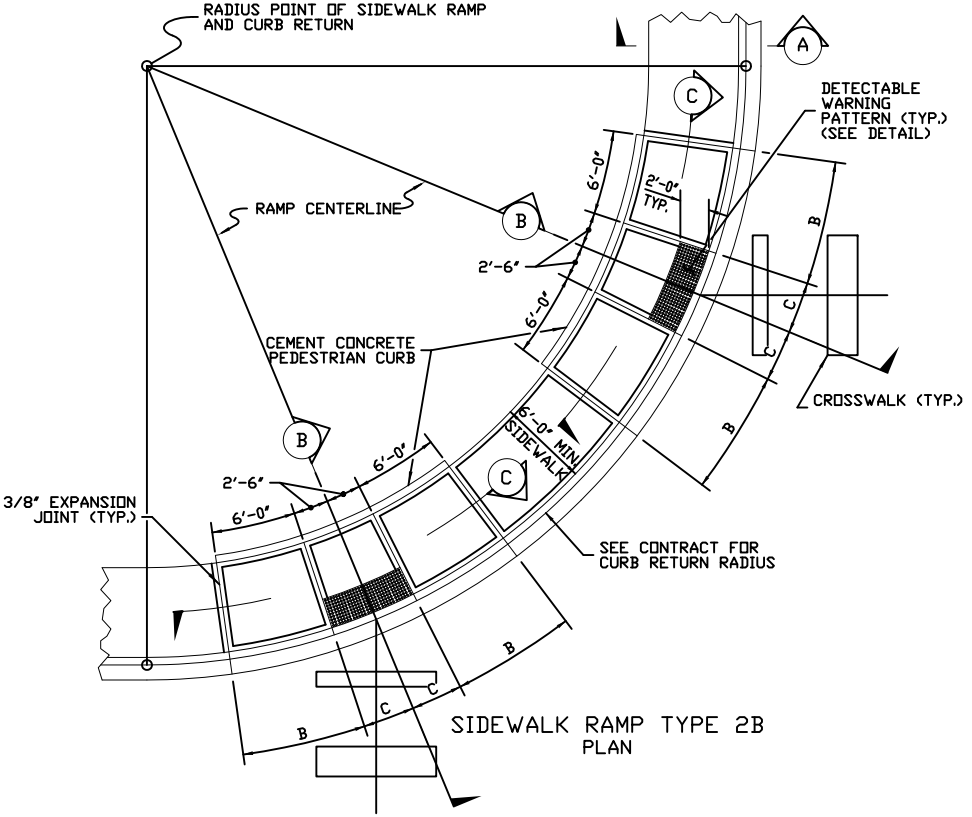
SIDEWALK RAMP TYPE 2A
PLAN



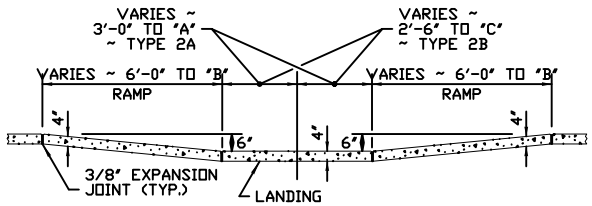
SECTION (A)



SECTION (B)



SIDEWALK RAMP TYPE 2B
PLAN



SECTION (C)

NOTES

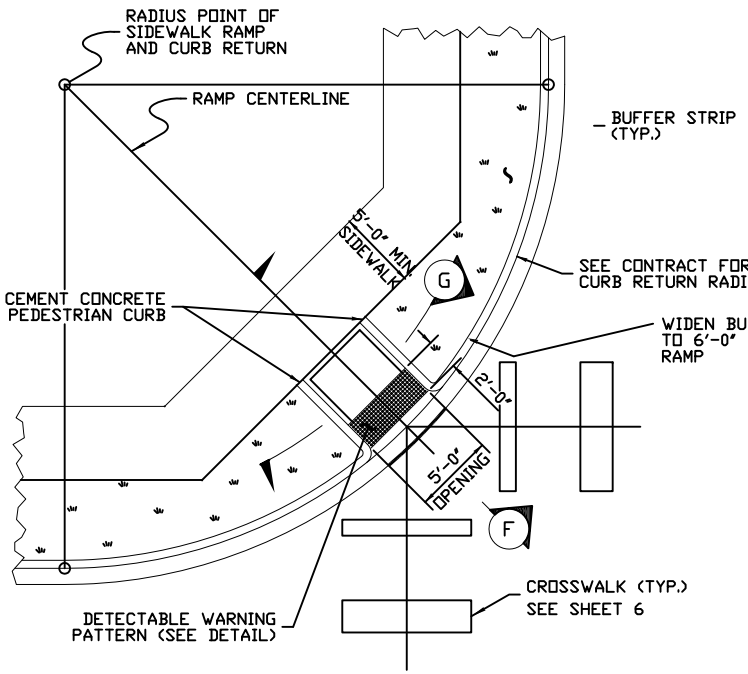
1. Avoid placing drainage structures, junction boxes or other obstructions in front of ramp access areas.
2. Detectable warning patterns per sheet 1 and swss section 8-14.3(3)
3. Curb and gutter shown, see the Contract Plans for the curb design specified.
4. **RAMP SLOPES SHALL BE SLOPED 12:1 OR FLATTER.**
5. See sheet 6 for crosswalk striping detail.

RADIUS (AT CURB FACE)	A	B	C
20 FEET	3'-0"	8'-10 1/2"	3'-0"
30 FEET	3'-0"	7'-8"	3'-0"
40 FEET	3'-0"	7 -2"	3'-0"

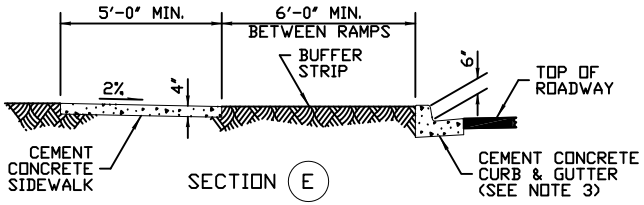
INTERMEDIATE RADII CAN BE INTERPOLATED

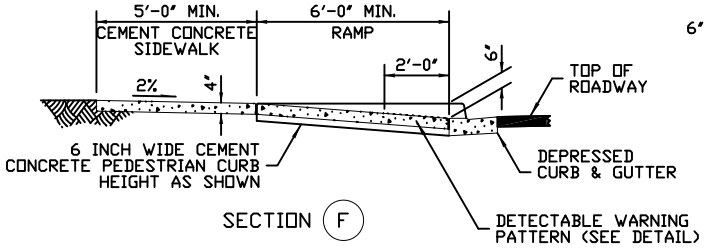
S:BCGEN/DETAILS/2-12-2 PED RAMP.DWG

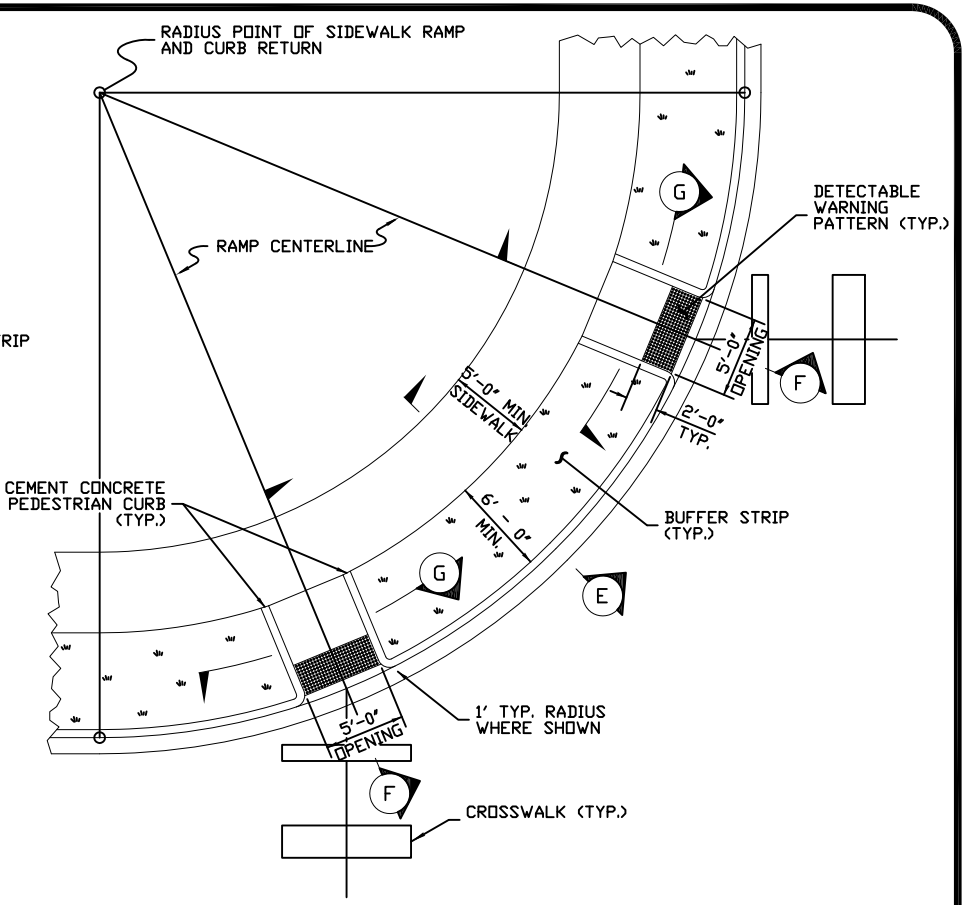
SIDEWALK PEDESTRIAN RAMP TYPES 3C & 3D



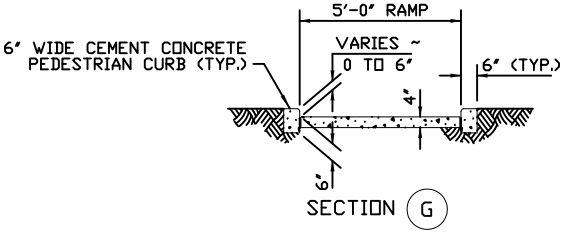
SIDEWALK RAMP TYPE 3C PLAN







SIDEWALK RAMP TYPE 3D PLAN



NOTE:

1. DETECTABLE WARNING PATTERN PER SHEET 1 AND SWSS SECTION 8-14.3(3)
2. SEE SHEET 6 FOR CROSSWALK STRIPING DETAIL
3. **RAMP SLOPES SHALL BE SLOPED 12:1 OR FLATTER.**

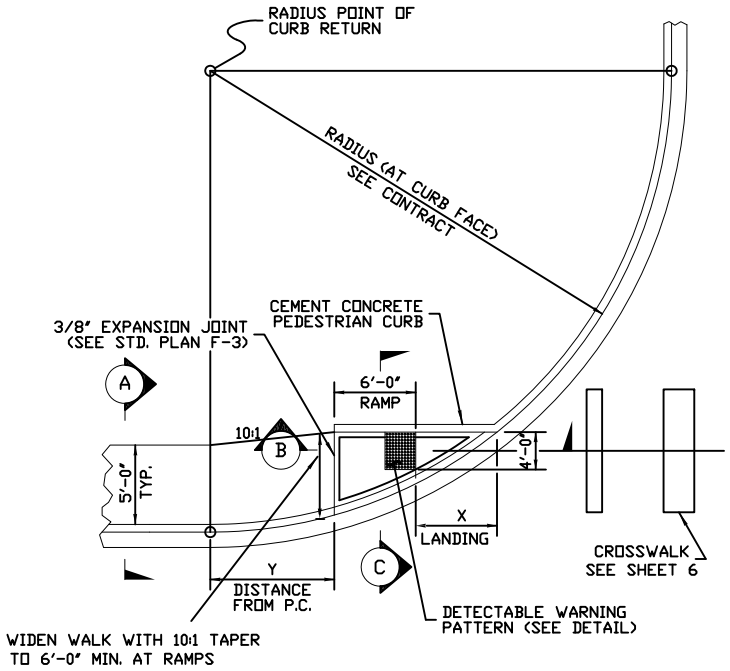
AUGUST 9, 2013

DWG # 2-12

SHEET 3 OF 6

S:BCGEN/DETAILS/2-12-3 PED RAMP.DWG

SIDEWALK PEDESTRIAN RAMP TYPE 4A



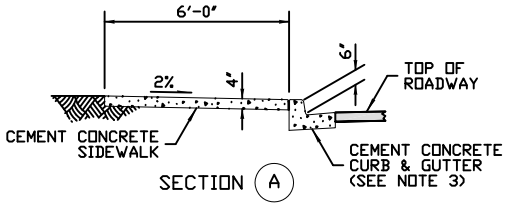
SIDEWALK RAMP TYPE 4A
PLAN

NOTES

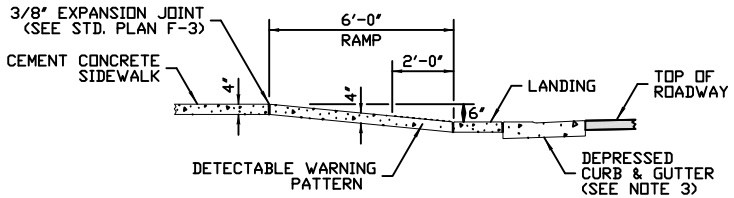
1. AVOID PLACING DRAINAGE STRUCTURES, J-BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
2. DETECTABLE WARNING PATTERNS PER DWG 2-12 SHEET 1 AND SWSS SECTION 8-14.3(3).
3. CURB AND GUTTER SHOWN, SEE THE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE STD PLAN F-1 FOR CURB DETAILS.
4. **RAMP SLOPES SHALL BE SLOPED 12:1 OR FLATTER.**
5. SEE SHEET 6 FOR CROSSWALK STRIPING DETAIL.

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 3/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"

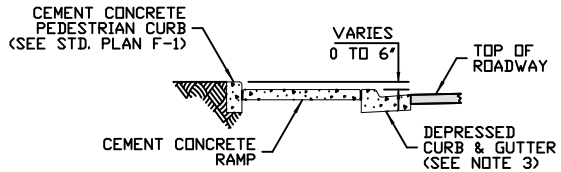
INTERMEDIATE RADII CAN BE INTERPOLATED



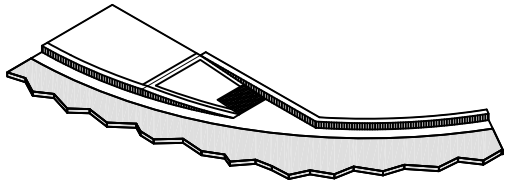
SECTION (A)



SECTION (B)



SECTION (C)



ISOMETRIC VIEW

AUGUST 9, 2013

DWG # 2 — 12

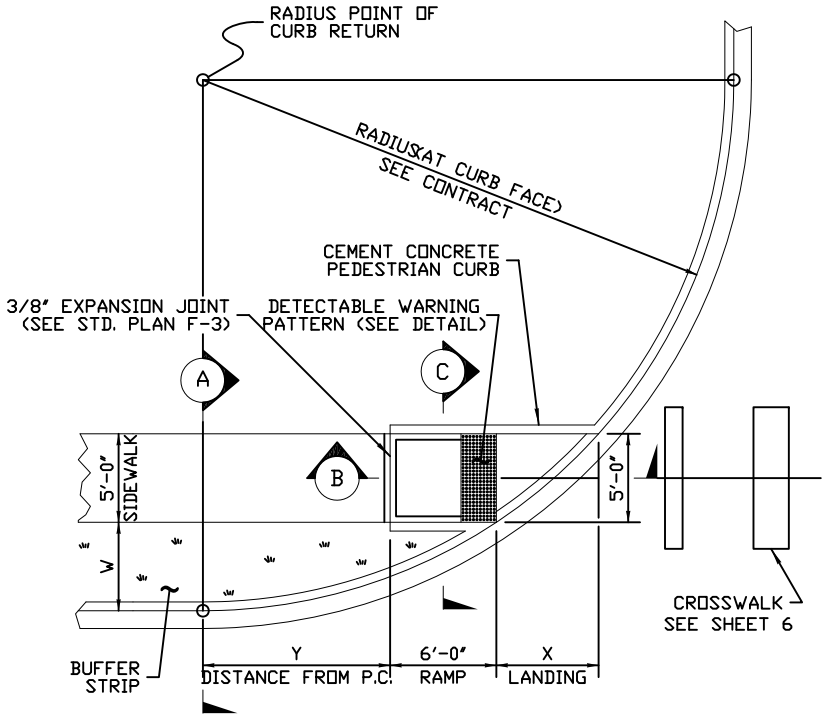
SHEET 4 OF 6

S:BCGEN/DETAILS/2-12-4 PED RAMP.DWG

SIDEWALK PEDESTRIAN RAMP TYPE 4B

RADIUS (AT CURB FACE)	W=3'-0"		W=4'-0"		W=5'-0"		W=6'-0"		W=7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"

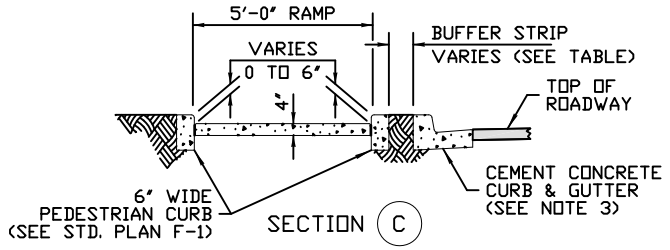
INTERMEDIATE RADII CAN BE INTERPOLATED



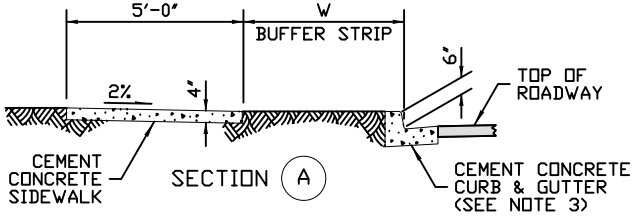
SIDEWALK RAMP TYPE 4B
PLAN

NOTES

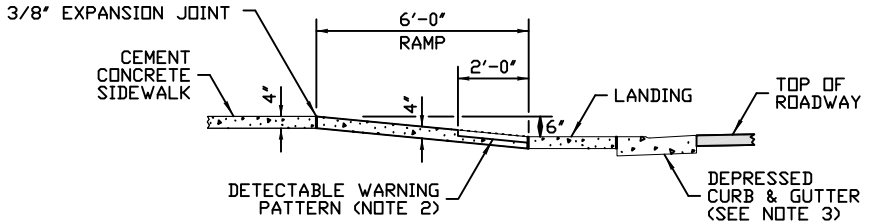
1. Avoid placing drainage structures, junction boxes or other obstructions in front of ramp access areas.
2. Detectable warning patterns per dwg 2-12 sheet 1 and swss section 8-14.3(3)
3. Curb and gutter shown, see the Contract Plans for the curb design specified.
4. **RAMP SLOPES SHALL BE SLOPED 12:1 OR FLATTER.**
5. See Sheet 6 for crosswalk striping detail.



SECTION (C)



SECTION (A)



SECTION (B)

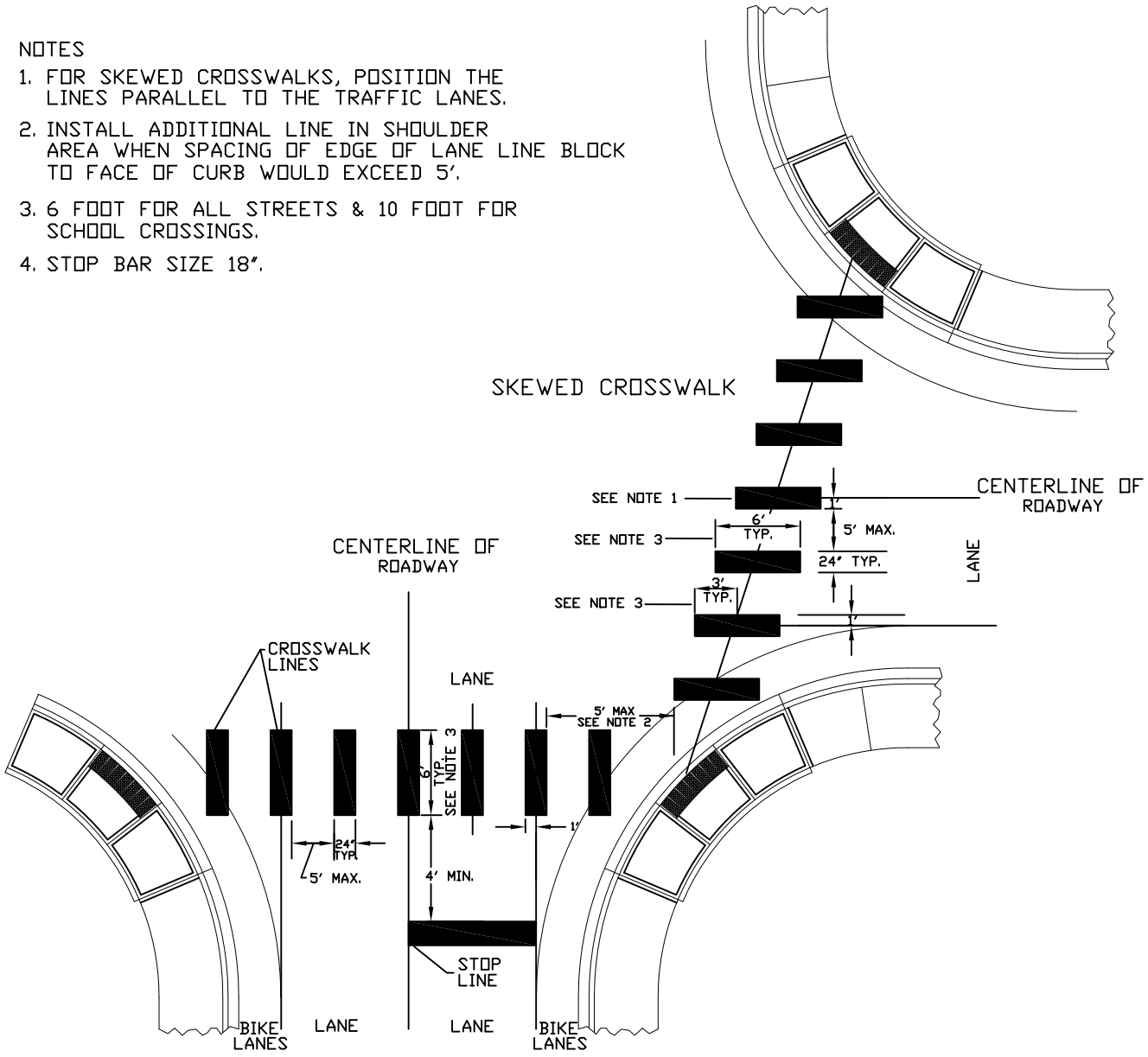
DWG # 2-12
SHEET 5 OF 6

AUGUST 9, 2013

S:BCGEN/DETAILS/2-12-5 PED RAMP.DWG

NOTES

1. FOR SKEWED CROSSWALKS, POSITION THE LINES PARALLEL TO THE TRAFFIC LANES.
2. INSTALL ADDITIONAL LINE IN SHOULDER AREA WHEN SPACING OF EDGE OF LANE LINE BLOCK TO FACE OF CURB WOULD EXCEED 5'.
3. 6 FOOT FOR ALL STREETS & 10 FOOT FOR SCHOOL CROSSINGS.
4. STOP BAR SIZE 18".



STANDARD PATTERN

AUGUST 9, 2013

BENTON CITY

CROSSWALK STRIPING DETAIL

DWG # 2-12

SHEET 6 OF 6

S:BCGEN/DETAILS/2-12-6 PED RAMP.DWG

CLASSIFICATION AND USE

THE CLASS OF CONCRETE REFERS TO THE NOMINAL NUMBER OF SACKS OF CEMENT PER CUBIC YARD, ALTHOUGH THIS DESIGNATION DOES NOT CONSTITUTE A GUARENTEE OF YIELD.

H.E.S. INDICATES HIGH EARLY–STRENGTH CEMENT AND MAY BE REQUIRED AT THE OPTION OF THE ENGINEER FOR ANY OF THE CLASSES OF MIX. WHENEVER IT IS CALLED FOR, IT WILL BE MEASURED AND PAYEMENT WILL BE MADE AS PROVIDED.

THE CONTRACTOR MAY, WITH APPROVAL OF THE ENGINEER, ELECT TO USE HIGH EARLY–STRENGTH CEMENT IN ANY OF THE MIXES, BUT NO EXTRA COMPENSATION WILL BE MADE FOR THE HIGH EARLY–STRENGTH CEMENT.

MINIMUM 28–DAY COMPRESSIVE STRENGTH SHALL BE 3,000 P.S.I. AIR–ENTRAINMENT ADMIXTURE SHALL NOT BE LESS THAN 4% OR MORE THAN 6% BY VOLUME.

HOT OR COLD WEATHER, PROTECTION WILL BE REQUIRED FOR A MINIMUM OF 7 DAYS PER THE REQUIREMENTS OF SWSS 5–05.3(13), 5–05.3(14) AND 6–02.3(6)A.

CLASS OF CONCRETE	3	4	5	5.5	6	6.5
SACKS PER CUBIC YARD	3	4	5	5.5	6	6.5

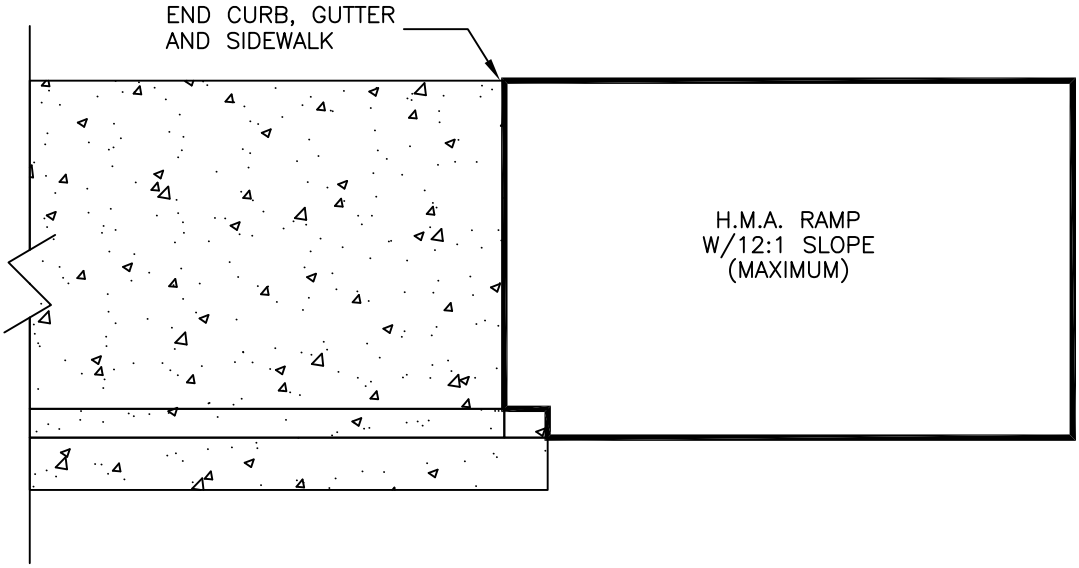
AUGUST 9, 2013

BENTON CITY

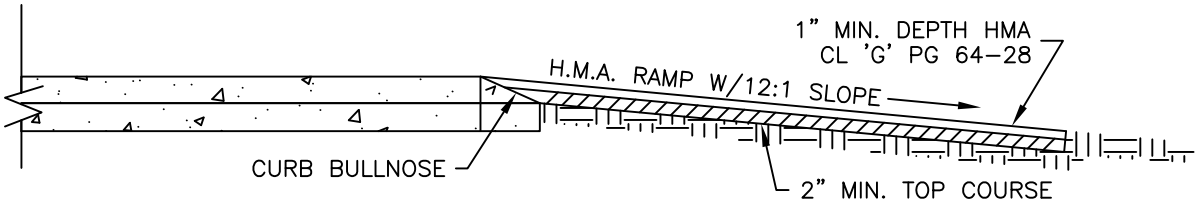
COMMERCIAL CONCRETE MIXES

DWG # 2–13

S:BCGEN/DETAILS/2–13 CONC MIX.DWG



TOP VIEW



SIDE VIEW

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

AUGUST 9, 2013

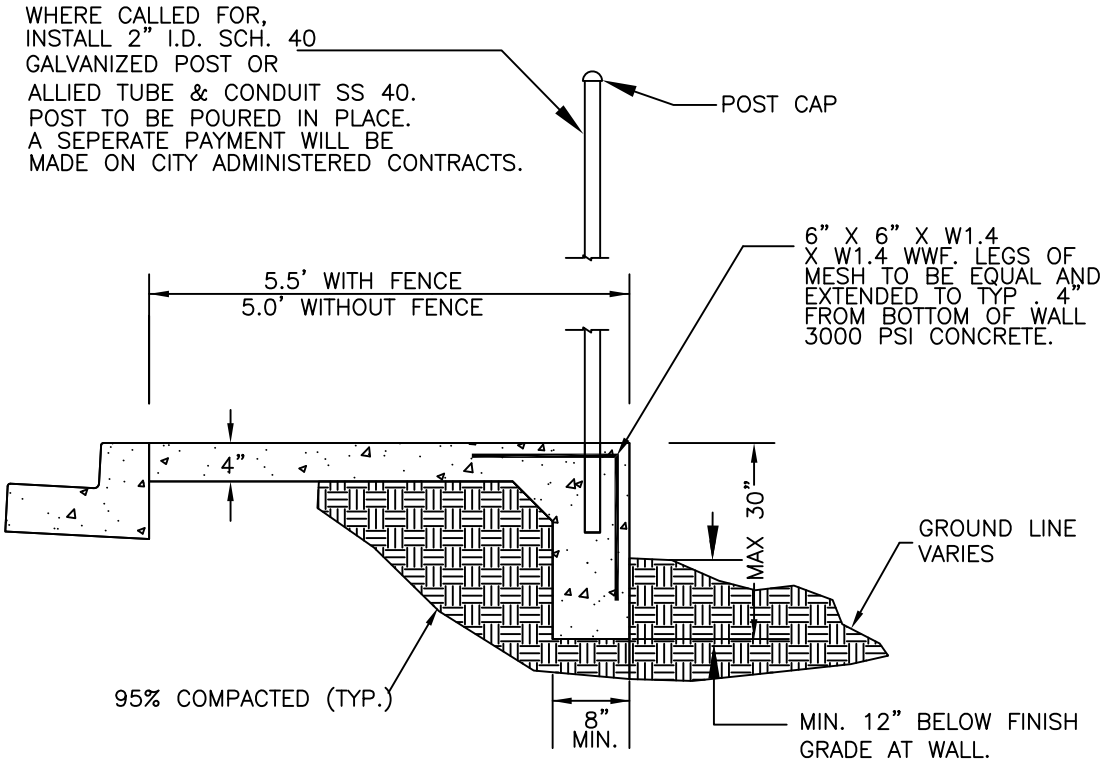
BENTON CITY

SIDEWALK HMA RAMP

DWG #

2-14

S:BCGEN/DETAILS/2-14 HMA RAMP.DWG



1) ON CITY ADMINISTERED CONTRACTS, DROP BACK SIDEWALK LOCATIONS WILL BE STAKED IN THE FIELD BY THE ENGINEER IN AREAS WHERE A SLOPED YARD TRANSITION IS DETERMINED TO BE UNDESIREABLE.

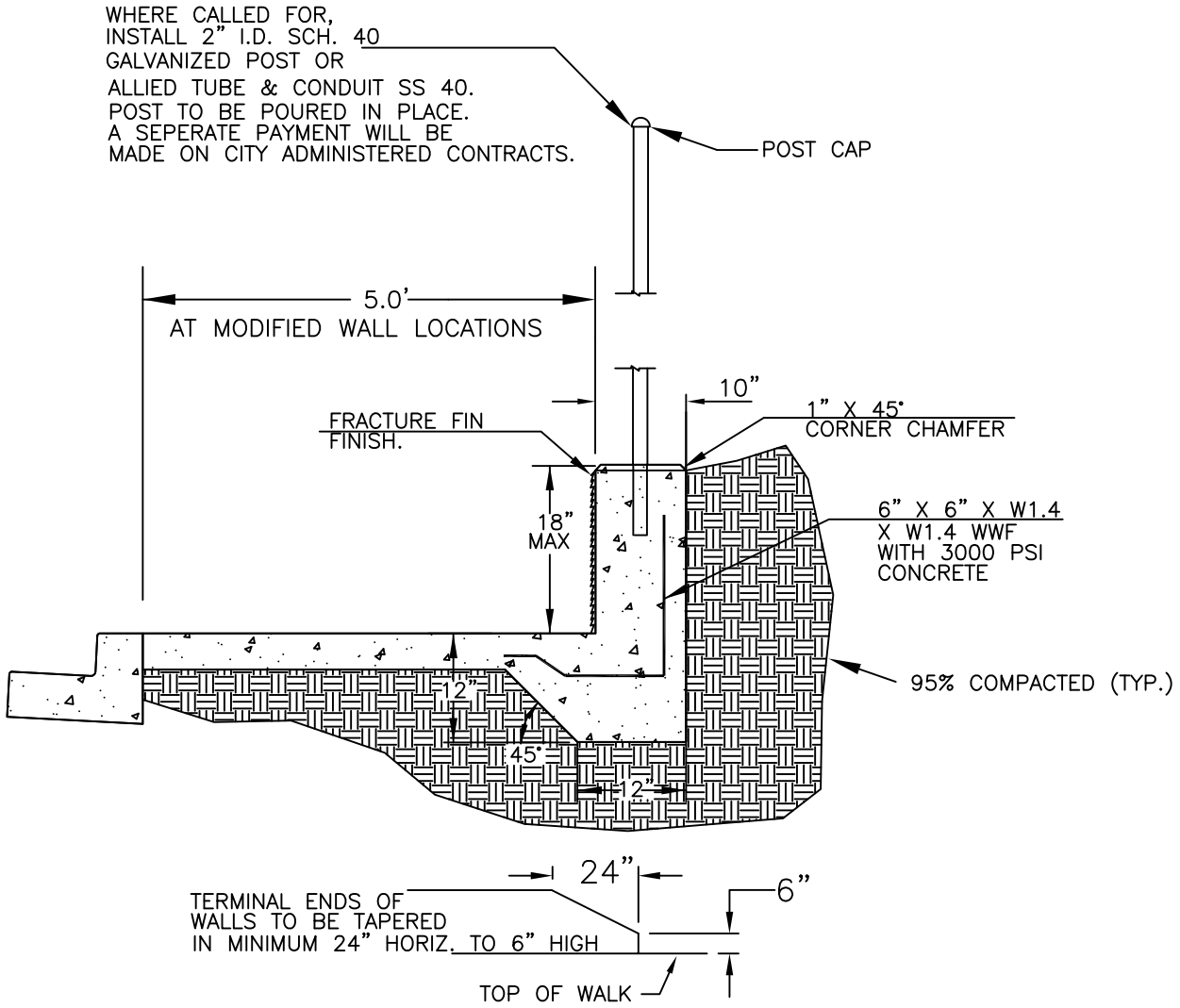
AUGUST 9, 2013

BENTON CITY

DROPPED BACK SIDEWALK

DWG # 2-15

S:BCGEN/DETAILS/2-15 DROP SIDEWALK.DWG



1) ON CITY ADMINISTERED CONTRACTS, MODIFIED RETAINING WALL LOCATIONS WILL BE STAKED IN THE FIELD BY THE ENGINEER IN AREAS WHERE A SLOPED YARD TRANSITION IS DETERMINED TO BE UNDESIREABLE.

AUGUST 9, 2013

BENTON CITY

MODIFIED RETAINING WALL

DWG #

2-16

S:BCGEN/DETAILS/2-16 MOD RET WALL.DWG