The bottom of the trench shall be graded and prepared to provide a firm and uniform bearing throughout the entire length of the pipe. See soils report for additional requirements.
1. THE CONTRACTOR SHALL CONTACT USA AT 1–800–227–2600, 48 HOURS PRIOR TO START OF WORK FOR CLEARING UNDERGROUND UTILITIES.

2. CONTRACTOR TO SECURE ENCROACHMENT PERMIT FOR WORK WITHIN CITY RIGHT–OF–WAY.

3. CONTRACTOR TO NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS PRIOR TO TRENCHING.

4. ALL WORK TO CONFORM TO THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION, AND/OR ASTM SPECIFICATIONS FOR TESTING. ANY DEVIATIONS FROM THESE STANDARDS SHALL BE APPROVED BY THE CITY ENGINEER.

5. UNLESS OTHERWISE SPECIFIED BY PRELIMINARY SOILS REPORT, BACKFILL MATERIAL TO BE PROPERLY MOISTENED AND PLACED IN 8" MAX. LOOSE LIFTS. ALL BACKFILL MATERIAL SHALL PASS A 1" SIEVE AND BE FREE FROM ORGANIC MATTER OR OTHER DELETERIOUS SUBSTANCES, AND SHALL BE OF SUCH NATURE THAT IT CAN BE COMPACTED READILY UNDER WATERING AND ROLLING OR TAMPERING TO FORM A FIRM, STABLE BASE.

6. CLASS II BASE, 3/4" MAX., TO CONFORM TO SECTION 26 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION, AND COMPACTED TO A MINIMUM OF 95%, THICKNESS SHALL BE PER APPROVED PLANS.

7. IN AREAS THAT REQUIRE ASPHALT CONCRETE, PLACE ASPHALT CONCRETE USING TYPE B, 1/2" MAX, MEDIUM GRADE AGGREGATE CONFORMING TO SECTION 39, AND PG GRADE 70–10 ASPHALT BINDER CONFORMING TO SECTION 92 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

8. IN AREAS THAT REQUIRE ROAD MIX, PLACE A MINIMUM OF 4" OF ROAD MIXED ASPHALT SURFACING CONFORMING TO SECTION 39 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

9. SAWCUT AND TRIM EXISTING STREET PAVING. APPLY PAINT BINDER TO VERTICAL SURFACES PRIOR TO PAVING. PAINT BINDER TO CONFORM TO SECTION 39–4.02 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION. SEAL FINISH SAW–CUT JOINT WITH APPROVED SEALANT WHEN FINISHED SURFACE IS CONSTRUCTED.

10. MINIMUM TRENCH WIDTH MEASURED AT OUTSIDE OF PIPE SHALL BE PIPE OUTSIDE DIAMETER PLUS 12". MAXIMUM TRENCH WIDTH MEASURED AT OUTSIDE OF PIPE SHALL BE THE OUTSIDE DIAMETER OF THE PIPE BELL OR COUPLING PLUS 24". PIPE SHALL BE CENTERED IN THE TRENCH. CONTRACTOR SHALL INSTALL SMOOTH STEEL PLATES TO COVER UN–BACKFILLED TRENCHES AT THE END OF EACH DAY. THE TOP OF THE STEEL PLATE SHALL BE FLUSH WITH THE ADJACENT SURFACE AS DIRECTED BY THE CITY ENGINEER.

11. THE CITY PUBLIC WORKS DEPARTMENT DESIGNATED INSPECTOR MAY REQUIRE COMPACTATION TESTS. ALL TESTS ARE TO BE ARRANGED AND PAID FOR BY THE CONTRACTOR AT TIMES AND LOCATIONS DESIGNATED BY THE CITY’S INSPECTOR. METHOD OF TESTING TO BE ASTM 1557–5 LAYER.

12. THE TRENCH SHALL BE BACKFILLED IN ACCORDANCE WITH THESE DETAILS WITHIN 5 WORKING DAYS AFTER COMPLETION OF TRENCHING OPERATIONS. EITHER A TEMPORARY COLD ASPHALT MIX OR FINAL PAVING IS TO BE COMPLETED WITHIN 10 WORKING DAYS AFTER COMPLETION OF BACKFILL OPERATIONS. IF A TEMPORARY COLD MIX IS PROVIDED, FINAL PAVING IS TO BE COMPLETED WITHIN 30 WORKING DAYS AFTER PLACEMENT OF THE COLD MIX. CONTRACTOR SHALL MAINTAIN TEMPORARY COLD MIX UNTIL SUCH TIME AS FINAL PAVING IS COMPLETED.

13. ALL APPURTENANCES SUCH AS VALVE BOXES, GRATES, MANHOLES, ETC. SHALL BE BROUGHT TO GRADE AS REQUIRED WITHIN 20 WORKING DAYS OF COMPLETION OF PAVING.

14. TRAFFIC SHALL BE ALLOWED TO PASS THROUGH THE CONSTRUCTION SITE. THE CONTRACTOR SHALL INSTALL SIGNS, LIGHTS, BARRICADES AND OTHER FACILITIES FOR THE CONVENIENCE, SAFETY AND DIRECTION OF PUBLIC TRAFFIC. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE COMPETENT FLAGGERS WHOSE ONLY DUTY SHALL BE TO DIRECT THE MOVEMENT OF TRAFFIC THROUGH OR AROUND THE WORK AREA. ALL TRAFFIC CONTROL SHALL CONFORM TO SECTION 12 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

15. IN AREAS OF NO PAVEMENT OR PHASED SUBDIVISIONS OR WHERE NO A.C. PAVEMENT AND/OR AGGREGATE BASE IS REQUIRED, THE COMPACTED BACKFILLED MATERIAL SHALL BE APPLIED TO A DEPTH OF 30" BELOW THE EXISTING GRADE AND SHALL BE COMPACTED TO 95% COMPACTATION.

16. UTILITY POTHOLE (AND/OR) SMALL BELL HOLE. STREET EXCAVATION TO BE BACKFILLED PER CITY PUBLIC WORKS INSPECTOR.
INSTALLATION OF NEW PIPE

EXISTING A.C. STREETS  NEW A.C. STREETS

8" THICK TYPE B A.C. (PG 70-10 BINDER) WITH 0.5" MAX. A.B.

TRENCH WIDTH

EXISTING A.C. PAVEMENT

UNDISTURBED SOIL

6" MIN.

4" MIN. SECTION BELOW PIPE COMPACTED TO 90% MIN. FOR STABLE PIPE BEDDING.

6" MIN.
12" MAX.

WATER, SEWER, OR STORM DRAIN PIPE

A.C. AND AGGREGATE BASE THICKNESS PER SUBDIVISION IMPROVEMENT PLANS

SECTION PER SUBDIVISION IMPROVEMENT PLANS

ONE SACK SLURRY MIX BACKFILL (TYP)

THE BOTTOM OF THE TRENCH SHALL BE GRADED AND PREPARED TO PROVIDE A FIRM AND UNIFORM BEARING THROUGHOUT THE ENTIRE LENGTH OF THE PIPE. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

SEE GENERAL NOTES PLATE B2-B

CITY OF ARVIN

PLATE B2-A

REvised: OCT. 2014 SHT. 1 OF 1
1. THE CONTRACTOR SHALL CONTACT USA AT 1-800-227-2600, 48 HOURS PRIOR TO START OF WORK FOR CLEARING UNDERGROUND UTILITIES.

2. CONTRACTOR TO SECURE ENCROACHMENT PERMIT FOR WORK WITHIN CITY RIGHT-OF-WAY.

3. CONTRACTOR TO NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS PRIOR TO TRENCHING.

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5. IN AREAS THAT REQUIRE ASPHALT CONCRETE, PLACE ASPHALT CONCRETE USING TYPE B, 1/2" MAX, MEDIUM GRADE AGGREGATE CONFORMING TO SECTION 39, AND PG GRADE 70–10 ASPHALT BINDER CONFORMING TO SECTION 92 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

6. IN AREAS THAT REQUIRE ROAD MIX, PLACE A MINIMUM OF 4" OF ROAD MIXED ASPHALT SURFACING CONFORMING TO SECTION 39 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

7. SAWCUT AND TRIM EXISTING STREET PAVING. APPLY PAINT BINDER TO VERTICAL SURFACES PRIOR TO PAVING. PAINT BINDER TO CONFORM TO SECTION 39-4.02 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION. SEAL FINISH SAW–CUT JOINT WITH APPROVED SEALANT WHEN FINISHED SURFACE IS CONSTRUCTED.

8. MINIMUM TRENCH WIDTH MEASURED AT OUTSIDE OF PIPE SHALL BE PIPE OUTSIDE DIAMETER PLUS 12". MAXIMUM TRENCH WIDTH MEASURED AT OUTSIDE OF PIPE SHALL BE THE OUTSIDE DIAMETER OF THE PIPE BELL OR COUPLING PLUS 24". PIPE SHALL BE CENTERED IN THE TRENCH. CONTRACTOR SHALL INSTALL SMOOTH STEEL PLATES TO COVER UN–BACKFILLED TRENCHES AT THE END OF EACH DAY. THE TOP OF THE STEEL PLATE SHALL BE FLUSH WITH THE ADJACENT SURFACE AS DIRECTED BY THE CITY ENGINEER.

9. THE CITY PUBLIC WORKS DEPARTMENT DESIGNATED INSPECTOR MAY REQUIRE COMPACTION TESTS. ALL TESTS ARE TO BE ARRANGED AND PAID FOR BY THE CONTRACTOR AT TIMES AND LOCATIONS DESIGNATED BY THE CITY'S INSPECTOR. METHOD OF TESTING TO BE ASTM 1557–5 LAYER.

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11. ALL APPURTENANCES SUCH AS VALVE BOXES, GRATES, MANHOLES, ETC. SHALL BE BROUGHT TO GRADE AS REQUIRED WITHIN 20 WORKING DAYS OF COMPLETION OF PAVING.

12. TRAFFIC SHALL BE ALLOWED TO PASS THROUGH THE CONSTRUCTION SITE. THE CONTRACTOR SHALL INSTALL SIGNS, LIGHTS, BARRICADES AND OTHER FACILITIES FOR THE CONVENIENCE, SAFETY AND DIRECTION OF PUBLIC TRAFFIC. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE COMPETENT FLAGMEN WHOSE ONLY DUTY SHALL BE TO DIRECT THE MOVEMENT OF TRAFFIC THROUGH OR AROUND THE WORK AREA. ALL TRAFFIC CONTROL SHALL CONFORM TO SECTION 12 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

13. IN AREAS OF NO PAVEMENT OR PHASED SUBDIVISIONS OR WHERE NO A.C. PAVEMENT AND/OR AGGREGATE BASE IS REQUIRED, THE COMPACTED BACKFILLED MATERIAL SHALL BE APPLIED TO A DEPTH OF 30" BELOW THE EXISTING GRADE AND SHALL BE COMPACTED TO 95% COMPACTION.
Curb Angle Detail

WALL THICKNESS "T" SHALL BE AS FOLLOWS:

W > 8', T = 8"
H > 8', T = 8"
OTHERWISE T = 6"

Corner Reinforcing Detail

Catch Basin Details

CITY OF ARVIN

CITY ENGINEER

REVISED: NOV. 2014 SHT. 1 OF 1
2:1 MORTAR, DRY PACKED

VARIABLE - 7.17 MAX

1:1 SLOPE

7" MAX.

#5 AT 1.5' O.C.

CONSTRUCTION JOINT

BOTTOM TO OF OUTLET PIPE

OUTSIDE DIA. OF OUTLET PLUS T
3.17 MIN.

4.17 MIN.

6.83' MAX.

PLAN

SECTION A-A

STD. MANHOLE FRAME & COVER
5" MAX COVER
(EXTENSION RINGS REQUIRED)

#5 AT 6" O.C. WHEN OUTSIDE DIAMETER OF PIPE IS 2.5 OR GREATER.

#5 AT 6" O.C. BOTH WAYS

NOTES:
1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

2. ALL CONCRETE SHALL BE CLASS "A" UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

3. ALL REINFORCING STEEL SHALL BE OF #5 REINFORCING BARS AND BENT AS SHOWN.

4. MANHOLE COVER SHALL HAVE CAST THEREON IN RAISED LETTERS "DRAIN" LETTERING IS TO BE 3" IN HEIGHT AND RAISED 0.125".

RESOLUTION # 02-43

CITY OF ARVIN

JUNCTION BOX

PLATE D2

CITY ENGINEER

REVISED: NOV. 2002 SHT. 1 OF 1
ALHAMBRA FOUNDRY COMPANY
NO. A-3900, FACE ANGLE
2.375" x 2.375" x 0.375" GALVANIZED

FLOWLINE

CURB FACE

BOTTOM OF CURB

EXPANSION JOINT (TYP.)

ELEVATION

FLOWLINE

EXPANSION JOINT (TYP.)

PLAN

INLET

2.5" FOR 6" CURB

4.5" FOR 8" CURB

2% OUTLET

0.5" CURB FACE

6" x 6" / 10 .10 WELDED WIRE FABRIC

SECTION A-A

NOTES:

1. SIDEWALK UNDERDrain ONLY to be used with the approval of the CITY ENGINEER.

2. ALL WORK shall conform to the applicable sections of the specifications entitled, "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

3. ALL CONCRETE shall be class "A" and shall have a slump within 2.5" to 4.0".

4. SUBGRADE preparation shall be constructed true to grade and cross section, with compaction of 90% to a depth of 6".

5. EXISTING SIDEWALK shall be SAWCUT and removed at the first scoring line at or beyond the planned joint. ALL EXPOSED SURFACES OF THE SIDEWALK UNDERDrain shall match the existing CURB, GUTTER and SIDEWALK SURFACES.

6. EXPANSION JOINT FILLER MATERIAL shall be PReFORMed of a DURABLE, RESILIENT COMPOUND.

7. DIMENSIONS
   A = GUTTER WIDTH, 1' < A < 3'
   B = SIDEWALK WIDTH
   θ = 90'
   ALL DIMENSIONS TO BE APPROVED BY CITY ENGINEER.

8. ALL INLET MODIFICATIONS shall be subject to the APPROVAL OF THE CITY ENGINEER.

* ANCHOR IS 0.375" DIA. X 4"

RESOLUTION # 02-43

CITY OF ARVIN

CITY ENGINEER

SIDEWALK UNDERDrain

REvised: NOV. 2002 SHT. 1 OF 1
1. USE THE CURRENT EDITION OF THE KERN COUNTY SUBDIVISION STANDARDS, SECTION 301, "STANDARDS FOR DRAINAGE" AND THE KERN COUNTY HYDROLOGY MANUAL SHALL BE THE BASIS FOR DESIGN.
NOTES:

1. ALL WORK SHOWN SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

2. SIDE SLOPES SHALL NOT EXCEED 2:1.

3. ALL EXPOSED METAL IN THE OUTLET STRUCTURE SHALL NOT BE LESS THAN 20 AND SHALL CONFORM TO THE FOLLOWING GRADING: DIPPED GALVANIZED AFTER FABRICATION.

4. CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY ENGINEER.

5. CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND COMPLYING TO SEC. 90-7.01B OF THE STANDARD SPECIFICATIONS.

6. NO PIPE BOLTS SHALL BE PLACED IN THE STRUCTURE.

ELEVATION
OUTLET STRUCTURE

PIPE O.D. + 1'

O.D. OF PIPE + 2'
MIN. 3'

0.375" X 2" FLAT BAR
LENGTH = PIPE O.D. + 10"
(TYPICAL)

0.5" BARS AT 6" O.C.

0.375" GALVANIZED MACHINE BOLTS INTO LEAD SHIELDS

WELD 0.5" BARS TO FLAT BARS AT TOP AND BOTTOM

RESOLUTION # 02-43

CITY OF ARVIN

TYPICAL
OUTLET STRUCTURE

PLATE
D7

REVISED: NOV. 2002 SH. 1 OF 1
NOTES:
1. INSTALLATION OF FENCING AND GATES SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION," CURRENT EDITION.
2. A 6" X 9" CLASS "B" CONCRETE CURB SHALL BE CONSTRUCTED UNDER ALL FENCES WITHIN CITY PARKS. A 6" THICK X 12" WIDE CURB SHALL BE USED IN EITHER CASE. A 1.5" CLEARANCE BETWEEN THE CURBING AND FABRIC SHALL BE USED.
3. FABRIC SHALL BE FASTENED TO GATE POST, TERMINAL POST, OR CORNER POST WITH 0.25" X 0.75" STRETCHER BARS AT 8" ON CORNER.
4. CORNER POSTS SHALL BE INSTALLED AT ALL ANGLES IN FENCE LINE EXCESS OF 10 DEGREES.
5. FABRIC SHALL BE FASTENED TO LINE POST WITH FABRIC BANDS SPACED APPROXIMATELY 14" APART, AND TO TOP RUNNER AND BOTTOM TENSION WIRES WITH FABRIC BANDS SPACED APPROXIMATELY 24" APART.
6. FABRIC SHALL CONFORM TO ASTM 1-392, CLASS 1.
7. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 85% TO A DEPTH OF 6".
8. CONCRETE SHALL BE CLASS "B" AND SHALL BE WITHIN 2.5" AND 5.5" SLUMP.
9. SURFACE OF CONCRETE SHALL BE TROWELED SMOOTH AND BRUSH FINISHED.
10. CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS PRIOR APPROVAL IS OBTAINED FROM THE CITY ENGINEER.
11. END, CORNER AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALVANIZED DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALVANIZED 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS TIGHTENER USED AS TENSION MEMBERS.

FENCING TABLE

| HEIGHT (H) | 6'-0" |
| DEPTH AT CORNER POST (DC) | 3'-0" |
| DEPTH AT LINE POST (DL) | 2'-6" |
| TERMINAL POST | 2-7/8" O.D. GALV. PIPE OR CENTER POST | 5.79 LBS./FT. |
| LINE POST | H COLUMN | 2-1/4" X 1-7/8" 4.10 LBS./FT. |
| | 2-3/8" O.D. GALV. PIPE | 3.65 LBS./FT. |
| FENCE FABRIC | 9 GAUGE, 2" MESH, GALV. AFTER WEAVING KNUCKLED TOP AND BOTTOM |  |
| | 1 GAUGE, 1.75" TENNIS FENCE MESH, GALV. AFTER WEAVING, KNUCKLED TOP AND BOTTOM |  |
| | REDWOOD SLATS | 2-3/16" X 1/4" |

RESOLUTION # 02-43

CITY OF ARVIN

CHAINLINK FENCE

REVISED: NOV. 2002 SHT. 1 OF 1
NOT HIGHER THAN THE
HEAD OF TREE

A LOOP OF REINFORCED RUBBER HOSE
0.625" TO 1" DIA. & 10 GAL. WIRE HOSE
LOOP I.D. IS 2" LARGER THAN TREE

2" x 2" x 8' STAKES, REDWOOD,
CEDAR OR TREATED D.T.

VARIES BY SIZE OF ROOT BALL

36" MIN.

PROTECT TRUNK WITH
"TREE WHITE" OR BURLAP

1/2" MAX
4" SIDEWALK

ROOT RETAINER AS
MANUFACTURED BY DEEP
ROOTY CORP. OR EQUAL

0.75" x 1.25" GRAVEL
OUTSIDE OF RETAINER
3" MIN.

NOTES:
1. PROPERTY OWNER TO PROVIDE
AND BE RESPONSIBLE FOR ALL TREE
MAINTENANCE INCLUDING WATERING,
FERTILIZING, PRUNING, AND LEAF PICKUP.

2. TREE TYPE TO CONFORM TO TREE
LIST AS APPROVED BY PLANNING DIRECTOR.

3. MIN. TREE SIZE = 15 GAL. OR 6'.

4. MIN. VERTICAL CLEARANCE TO LOWEST:
A. LIMB OVERHANGING PARKING LANE = 14'
B. LIMB OVERHANGING SIDEWALK = 2'

5. TREES SHALL NOT BE PLACED WITHIN
25' OF AN INTERSECTION.

3' X 3' TREE WELLS, TREES 35' O.C.

CITY OF ARVIN

RESOLUTION # 02-43

CITY ENGINEER

REvised: Nov. 2002

PLATE L1-A

TREE PLACEMENT
RESIDENTIAL

SEE ALSO PLATE L1-B
1. Use the current edition of the Kern County Subdivision Standards, Standard R61 and R62.
SLOPING GRADE

2 - #4 BOND BEAM BARS CONTINUOUS AT TOP

2" BARS

LEVEL GRADE

1.5 MIN.

5'-0" MAX.

8" CONCRETE MASONRY WALL - ALL CELLS FILLED SOLID WITH GROUT

HOR. STEEL #4 AT 24" O.C. (TYP)

Omit Head Joint in First Course at 32" OC for Weep Hole

GRADE

12" MIN.

12"

12"

12"

1"

3 - #4 BARS

SECTION 5'-0" MAX.

Pour footing against undisturbed natural soil

HORIZONTAL "X" BARS

NOTE:
1. CONCRETE IN FOOTING TO TEST 2000 LBS PER SQ. IN. @ 28 DAYS
2. CONCRETE BLOCK - GRADE "A" UNITS A.S.T.M. C-90
3. GROUT - 1 PART CEMENT, 3 PARTS SAND, 2 PARTS PEA GRAVEL
4. MORTAR - 1 PART CEMENT, 1/2 PART LIME PUTTY, 4-1/2 PARTS SAND
5. RETAINING WALL NOT TO BE USED AS FOUNDATION FOR BUILDING.

MAXIMUM STRESSES

Fm=20,000 PSI  Fr=400 PSI

SHEAR = 15 PSI  BOND U=100 PSI

SOIL PRESSURE = 1000 LBS PER SQ. FT.

CONCRETE TO SOIL FRICTION COEFFICIENT = 0.4

SOIL LATERAL = 300 LFT.

SOIL VERTICAL = 100#/

RESOLUTION # 02-43

CITY OF ARVIN

RETAINING WALL 5' HIGH MAXIMUM

PLATE M1

REVISED: NOV. 2002  SHT. 1 OF 1
SECTION OVER 5’–0” TO 8’–0” HIGH

NOTES:
1. CONCRETE IN FOOTING TO TEST 2000 LBS PER SQ. IN. AT 28 DAYS
2. CONCRETE BLOCK - GRADE "A" UNITS A.S.T.M. C-90
3. GROUT - 1 PART CEMENT, 3 PARTS SAND, 2 PARTS PEA GRAVEL
4. MORTAR - 1 PART CEMENT, 1/2 PART LIME PUTTY, 4-1/2 PARTS SAND
5. RETAINING WALL NOT TO BE USED AS FOUNDATION FOR BUILDING.

MAXIMUM STRESSES
Fv = 20,000 PSI    Fm = 450 PSI
SHEAR  V = 15 PSI    BOND U = 100 PSI
SOIL PRESSURE = 1000 LBS PER SQ. FT.
CONCRETE TO SOIL FRICTION COEFFICIENT = 0.4
SOIL LATERAL = 20’ / 3
SOIL VERTICAL = 100’ / 3

RESOLUTION # 02-43

CITY OF ARVIN

RETAINING WALL
OVER 5’ HIGH TO 8’ HIGH

PLATE M2

REVISED: NOV. 2002 SHT. 1 OF 1
S = STRAIGHT LINE SLOPE (MIN. = 2%, MAX. = 4%)

FULL WIDTH STREET - TYPE (A)

S = STRAIGHT LINE SLOPE (MIN. = 2%, MAX. = 4%)

FULL WIDTH STREET - TYPE (B)

S = STRAIGHT LINE SLOPE (MIN. = 2%, MAX. = 4%)

PART WIDTH STREET - TYPE (C)

MEDIAN CURB DETAIL (1)

<table>
<thead>
<tr>
<th>#</th>
<th>STREET</th>
<th>STRETCH</th>
<th>CFT. (FT.)</th>
<th>TW (FT.)</th>
<th>L (FT.)</th>
<th>W/2 (FT.)</th>
<th>W (FT.)</th>
<th>T.I.</th>
<th>AC (IN.)</th>
<th>AB (IN.)</th>
<th>CURB &amp; GUTTER</th>
<th>SIDEWALKS</th>
<th>PUE (FT.)</th>
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<tr>
<td>1</td>
<td>MAJOR</td>
<td>A, B</td>
<td>110</td>
<td>10</td>
<td>36</td>
<td>9</td>
<td>45</td>
<td>90</td>
<td>4</td>
<td>8</td>
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<td>TYPE 1, 2, 3</td>
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</tr>
<tr>
<td>2</td>
<td>MAJOR</td>
<td>A, B</td>
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<td>10</td>
<td>36</td>
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<td>90</td>
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<tr>
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<td>COLLECTOR</td>
<td>B</td>
<td>90</td>
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<td>36</td>
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<td>4</td>
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<td>TYPE 1</td>
<td>6</td>
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</table>

*12" SECTION NATIVE MATERIAL COMPACTED TO 95% RELATIVE COMPACTION.

NOTE: TYPICAL STREET SECTIONS AS SHOWN MAY BE REVISED PER REQUIREMENTS OF THE PRELIMINARY SOILS REPORT.
PUE=PUBLIC UTILITY EASEMENT AC=ASPHALT CONCRETE AB=AGGREGATE BASE T.I.=TRAFFIC INDEX ROW=RIGHT-OF-WAY

RESOLUTION # 02-43

CITY OF ARVIN

STREET SECTIONS

PLATE R1

REVISED: JAN. 2008

BY: JPB
1. All concrete shall be 6-sack mix, type II--V. The surface shall be finished to grade and cross section with a float, troweled smooth, and finished with a broom. Apply curing agent per Sec. 90-7.01B of the standard specifications.

2. Subgrade preparation for curb and gutter shall be constructed true to grade and cross section, with compaction of 95% to a depth of 12".

3. Subgrade preparation for sidewalk shall be constructed true to grade and cross section, with compaction of 90% to a depth of 12".

4. Expansion joints shall be either (A) 2", or 3" premolded expansion joint filler per Caltrans standard specifications 73-1.03E, or (B) 2" deep score joint (weakened plane joint, extrusion machine only). Expansion joints shall be placed at sides of structures, end of curb returns, and opposite expansion joints in existing curb. Note: Maximum spacing = 50 ft.

5. Weakened plane joints shall be constructed at 20 foot intervals or as directed by the engineer.

6. Score sidewalk in rectangles of not less than 12 square feet nor more than 20 square feet. Sidewalk score marks minimum depth of 0.125".

7. Roll-top curb & gutter only allowed in industrial zones with approval of the city engineer and planning department.

8. Sidewalk to curb and gutter not to be poured as monolithic.

9. Property at intersections shall be a 20 foot by 20 foot cut off for wheelchair ramps.

10. Minimum grade for curb and gutter flow line shall be 0.25%. Exceptions to the minimum grade shall be approved by the city engineer, and will require flow testing during construction, but prior to start of AC paving operations.
NOTES:

1. ALL CONCRETE SHALL BE 7 SACK MIX TYPE II-V.
2. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 95% TO A DEPTH OF 12''.
3. VALLEY GUTTER FLOWLINE SHALL MATCH BACK EDGE OF ALLEY DRIVEWAY APPROACH TO ELIMINATE PONDING.
4. EXPANSION JOINT MATERIAL OR WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS IN VALLEY GUTTER (TYP).
5. EXPANSION JOINTS SHALL BE EITHER (A) 1/2'' TO 3/4'' PREMOLDED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2'' DEEP SCORE JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).
6. MINIMUM GRADE FOR VALLEY GUTTER SHALL BE 0.2%. EXCEPTIONS TO THE MINIMUM GRADE SHALL BE APPROVED BY CITY ENGINEER.

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<th>#</th>
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<th>ROW (FT.)</th>
<th>C (FT.)</th>
<th>TW (FT.)</th>
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<th>W/2 (FT.)</th>
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NOTE: TYPICAL ALLEY SECTIONS AS SHOWN MAY BE REVISED PER REQUIREMENTS OF THE PRELIMINARY SOILS REPORT.
AC-ASPHALT CONCRETE  AB-AGGREGATE BASE  T.I.-TRAFFIC INDEX  ROW-RIGHT OF WAY

<table>
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<th>RESOLUTION #</th>
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<tbody>
<tr>
<td>CITY ENGINEER</td>
<td>ALLEY SECTIONS</td>
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</table>

REVISED: NOVEMBER 2014  BY: AV

PLATE R3
1. All concrete shall be 7 sack mix, Type II-V.
2. Subgrade preparation shall be constructed true to grade and cross section with compaction of 95% to a depth of 12".
3. All concrete surfaces shall be given a broom finish with strokes parallel to gutter flowline and shall be cured with an approved curing compound.
4. Expansion joints shall be placed at 15' intervals (Typ.).
5. Expansion joints shall be either (a) ⅜" to ⅝" pre-molded expansion joint filler per Sec. 51-1.12 of the standard specifications, or (b) 2" deep score joint (weakened plane, extrusion machine only).
6. Minimum grade for cross gutter shall be 0.2%. Exceptions to the minimum grade shall be approved by City Engineer.
7. Maximum cross slope shall be 1.8% along ADA path of travel.
8. Alleys without adequate space for a curb return to be designed as special condition.
NOTES:
1. PARKWAY WIDTH TO BE MAINTAINED AT A UNIFORM WIDTH AROUND CUL-DE-SAC AND KNUCKLE.
2. GUTTER FLOWLINE SLOPE TO BE 0.2% MINIMUM.
3. FL = CURB AND GUTTER FLOWLINE

RESOLUTION #: 02-43

CITY OF ARVIN

CUL-DE-SAC AND KNUCKLE TREATMENTS

REVISED: NOV. 2002 SHT. 1 OF 1
NOTES:

1. ALL EXISTING VERTICAL SURFACES SHALL BE COATED WITH AN ASPHALTIC PAINT BINDER (TACK COAT) PRIOR TO PLACING NEW PAVEMENT.

2. ALL NEW PAVEMENT AND EARTHWORK SHALL BE COMPACTED BY MECHANICAL MEANS.

3. COMPACTING TESTING PER REQUIREMENTS OF CITY ENGINEER.
NOTES:

1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE CLASS "A".
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE Poured AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THIS DRIVEWAY APPROACH.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. THIS STANDARD APPLIES TO 6" CURB ONLY.

CITY OF ARVIN

RESIDENTIAL
DRIVE APPROACH

PLATE R7

REVISED: OCTOBER 2014  BY: AV
SHT. 1 OF 1
NOTES:
1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE (6-SACK) CLASS "A", TYPE II - V CEMENT AND 0.45 W/C.
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE Poured AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THIS DRIVEWAY APPROACH.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. THIS STANDARD APPLIES TO 6" CURB ONLY.
NOTES:

1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE CLASS "A".
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE POURED AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THE RESIDENTIAL DRIVEWAY APPROACH PLATE.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. SEE PLATE R9 FOR ADDITIONAL A.D.A. RAMP REQUIREMENTS AND INFORMATION REGARDING GROOVING & TRUNCATED DOMES.
NOTES:

1. CURB RAMP SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE 5-SACK CLASS "B" (TYPE II-V).
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE EXTENDING THE FULL WIDTH & 3'-0" DEPTH OF THE RAMP, UNLESS RAMP SLOPE IS LESS THAN 6.7%, IN WHICH CASE THE DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH & DEPTH OF THE CURB RAMP INSIDE THE GROOVED BORDER, EXCLUDING WINGS. COLOR YELLOW CONFORMING TO FEDERAL COLOR NO. 335.58.
7. BECAUSE OF EXISTING CONDITIONS, OTHER CURB RAMP CONFIGURATIONS MAY BE NECESSARY. THESE SHALL MEET THE STATE OF CALIFORNIA ARCHITECTURAL BARRIERS LAWS AND BE APPROVED PRIOR TO INSTALLATION.

R = 20' FOR RESIDENTIAL CURB RETURNS
R = 30' FOR COMMERCIAL/INDUSTRIAL CURB RETURNS
STANDARD STREET SIGN
(REFLECTIVE HIGH INTENSITY
GRADE WITH GRAFFITI-PROOF
FILM) SAME LOCATION WITH OR
WITHOUT STOP SIGN (SEE
PLATE R10, R12)

STANDARD R-1 STOP SIGN
30" X 30" REFLECTIVE HIGH
INTENSITY GRADE WITH
GRAFFITI-PROOF FILM

2" I.D. STD
GALVANIZED PIPE
POST

GENERAL INFORMATION SIGN
(REFLECTIVE HIGH INTENSITY
GRADE WITH GRAFFITI-PROOF
FILM - TYPE, SIZE AND
SPACING PER APPROVED PLANS)

2" I.D. STD
GALVANIZED PIPE
POST

SIGN DETAIL (A)
4' SIDEWALK
SIGN SHALL BE BEHIND THE SIDEWALK

12"

6"

4'

3"

CLASS "B" CONCRETE

SIGN DETAIL (B)
5' SIDEWALK
SIGN SHALL BE 18" BEHIND CURB FACE

12"

3"

2.5'

18" BEHIND
CURB FACE

CLASS "B" CONCRETE

RESOLUTION # 02-43

CITY OF ARVIN

STREET SIGNAGE

PLATE R11

CITY ENGINEER

REVISED: DECEMBER 2006 SHT. 1 OF 1
TYPICAL LOCATION

NOTES:
1. SIGNS PROVIDED SHALL BE ACCOMPANIED BY A CERTIFICATE TO SHOW COMPLIANCE WITH CITY STANDARDS.
2. SIGN PLATES TO BE MADE OF 0.125" ALUMINUM PLATE, CUT TO DIMENSIONS SPECIFIED.
3. PLATES SHALL HAVE REFLECTIVE HIGH INTENSITY GRADE WITH GRAFFITI-PROOF FILM – GREEN BACKGROUND W/SILVER COPY.
4. FORMAT SHALL BE HAWKINS-HAWKINS CO., INC. SM–C12 OR PRIOR APPROVED EQUAL IN WRITING.
5. MOUNTS FOR PLATES SHALL BE HAWKINS-HAWKINS CO., INC. VANDAL-PROOF (HD) VP 90° CROSS PIECE V–14F–(HD) VP–105(90) AND PIPE CAP V14F–(HD) VP–107(2C) TO FIT A 2" I.D. PIPE OR APPROVED EQUAL.
6. INSTALL TWO 5/16" X 3.5" BOLTS THROUGH PIPE CAP AND PIPE. USE HAWKINS-HAWKINS CO. VANDAL PROOF NUT M2G–VP 56N OR APPROVED EQUAL.
7. SPECIAL DESIGN VANDAL-PROOF FASTENER V14F–(HD) VP–12 PT KNURED HEAD, 0.5" LENGTH, NOMINAL OR PRIOR APPROVED EQUAL SHALL BE USED.
8. SIGNS FACING TRAFFIC ON ARTERIAL AND MAJOR COLLECTORS SHALL BE METRO SIZE (8" X 30" MIN.) WITH 5" CAPS.

RESOLUTION # __________________________ CITY OF ARVIN

CITY ENGINEER

STREET SIGN RESIDENTIAL

PLATE R12

REVISED: NOV. 2015 SHT. 1 OF 1
STREET LIGHT IS TO BE PLACED:

1. BEHIND THE SIDEWALK IF SIDEWALK IS LESS THAN OR EQUAL TO 5'.
2. 12" BEHIND CURB FACE IF SIDEWALK IS GREATER THAN 5' WIDE.
3. SEE GENERAL NOTES PLATE R14.

FOUNDATION (SQUARE OR ROUND)

NO. 6 BARE SOLID COPPER

1.5" MIN. DIA., 18" RADIUS PLASTIC CONDUIT BENDS, TYPE ABS, DWG.031793 OR PVC SCHEDULE 40

ANCHOR BOLTS (1"x36"x4", CODE 19-0076)

4" x 6.5" HANDHOLE AND COVER WITH 0.25" x 1.4 REINFORCEMENT RING WELDED TO OUTSIDE OF HOLE

0.5" 13NC GROUNDING NUT WELDED TO INSIDE OF POLE OPPOSITE HANDHOLE

COMPLETE POUR AFTER ERECTING AND LEVELING POLE

TOP OF CONCRETE FLUSH WITH CURB

DIRECT BURIAL

6"x6" CONCRETE CULVERT

#3-1/2 PULL BOX

0.75" GRAVEL

PULL-BOX DETAIL

SECTION A-A (COVER REMOVED)

STEEL POLE

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ALUMINUM POLE

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ANCHOR BASE DATA FOR STEEL POLES

ANCHOR BASE DATA FOR ALUMINUM POLES

RESOLUTION # 02-43

CITY OF ARVIN

STREET LIGHT

CITY ENGINEER

PLATE R13

REVISED: NOV. 2002 SHT. 1 OF 1
GENERAL NOTES

1. ALL WORK SHALL CONFORM TO SECTION 86 OF THE "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION, AND THESE SPECIAL PROVISIONS.

2. LUMINAIRE SHALL BE COBRA HEAD TYPE, HIGH PRESSURE SODIUM–VAPOR WITH TYPE IV PHOTOELECTRIC CELL AND A BALLAST WHICH PROVIDES 55 VOLTS TO THE BULB. TYPE IV REFRACTOR SHALL BE USED AT INTERSECTIONS, AND A TYPE II TWO-WAY SHALL BE USED AT MID-BLOCK LOCATIONS. LENS SHALL BE GLASS OR POLYCARBONATE PLASTIC. BULB SHALL BE 6,000 LUMENS ON LOCAL STREETS AND 9,500 LUMENS ON COLLECTOR/ARTERIAL STREETS, SUBJECT TO INCREASE BY DIRECTION OF CITY STAFF.

3. PULL BOX SHALL BE A SIZE 3–1/2 AND SHALL BE LOCATED WITHIN 5’ OF THE STREET LIGHT AND BE INSTALLED FLUSH WITH THE SIDEWALK. GRAVEL (0.75’ MAX.) SHALL BE PLACED UNDER THE PULL BOX FOR DRAINAGE (SEE DETAIL ON R13). PULL BOX COVER SHALL BE MARKED TO IDENTIFY IT AS STREET LIGHTING. PULL BOX MAY BE PRECAST CONCRETE OR PLASTIC.

4. WIRING FROM THE UTILITY COMPANY SERVICE BOX AT THE BASE OF THE POLE SHALL BE #10 MIN. SOLID OR STRANDED COPPER. THE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO, AND A REPRESENTATIVE SHALL BE PRESENT DURING ANY WORK WITHIN THE UTILITY COMPANY’S SERVICE BOX. WIRING FROM THE PULL BOX TO THE LUMINAIRE SHALL BE #12 MIN. SOLID OR STRANDED COPPER. VOLTAGE DROP FROM THE UTILITY COMPANY SERVICE BOX TO THE LUMINAIRE SHALL NOT EXCEED 5%. VOLTAGE AT THE UTILITY COMPANY SERVICE BOX SHALL BE 120V (240V MAY BE USED IN CERTAIN CIRCUMSTANCES SUBJECT TO THE APPROVAL OF THE CITY ENGINEER). GROUNDING WIRE FROM THE LUMINAIRE TO THE GROUNDING ROD SHALL BE #8 BARE COPPER. AN IN-LINE FUSE IN THE UNGROUNDED CONDUCTOR OR CONDUCTORS ONLY AND A 0.5” #8 LONG COPPER OR COPPER CLAD GROUNDING ROD SHALL BE LOCATED IN THE PULL BOX.

5. SPLICES IN THE PULL BOX SHALL BE TAPED AND WATERPROOFED WITH AN APPROVED ELECTRICAL COATING.

6. CONDUIT SHALL BE A 1.5” MINIMUM DIAMETER SCHEDULE 40 RIGID NON–METALLIC CONDUIT CONFORMING TO UL STANDARD UL 651. CABLE IN CONDUIT (C.I.C) MAY BE USED. CONDUIT SHALL HAVE A MINIMUM COVER OF 18”. SMALLER CONDUIT MAY BE USED WHERE THE TYPE OF POLE WILL NOT ACCEPT 1.5” CONDUIT, SUBJECT TO APPROVAL OF THE CITY ENGINEER.

7. ALL CONCRETE SHALL BE CLASS “A”.

8. THESE ARE MINIMUM STANDARDS. OTHER ALTERNATIVES TO BE APPROVED BY THE PLANNING DIRECTOR.

9. STANDARD PLATE R15 IS TO BE USED ON LOCAL STREETS IN RESIDENTIAL ZONES ONLY. STANDARD PLATE R13 IS TO BE USED FOR ALL OTHER STREETS, EXCEPT IN THE HISTORICAL DISTRICT. ALL LIGHTING MUST BE APPROVED BY THE PLANNING DIRECTOR.

10. ALL UNDERGROUND ELECTRICAL WIRE SHALL BE PLACED IN CONDUIT.
1. STREET LIGHT IS TO BE PLACED BEHIND THE SIDEWALK IF THE SIDEWALK IS LESS THAN OR EQUAL TO 5' WIDE. THE STREET LIGHT IS TO BE PLACED 12' BEHIND THE CURB FACE IF THE SIDEWALK IS GREATER THAN 5' WIDE.

2. LUMINAIRE SHALL BE POST TOP TYPE, HIGH PRESSURE SODIUM–VAPOR WITH TYPE IV PHOTOELECTRIC CELL AND BALLAST WHICH PROVIDES 55 VOLTS TO THE BULB. A TYPE III REFRACTOR SHALL BE USED. REFRACTOR/PANELS SHALL BE POLYCARBONATE PLASTIC. BULB SHALL BE 6,000 LUMEN FOR LOCAL STREETS.

3. PULL BOX SHALL BE SIZE 3–1/2 AND SHALL BE LOCATED WITHIN 5' OF THE STREET LIGHT AND BE INSTALLED FLUSH WITH THE SIDEWALK. GRAVEL (0.75" MAX.) SHALL BE PLACED UNDER THE PULL BOX FOR DRAINAGE. PULL BOX COVER SHALL BE MARKED TO IDENTIFY IT AS STREET LIGHTING. PULL BOX MAY BE PRECAST CONCRETE OR PLASTIC.

4. WIRING FROM THE UTILITY COMPANY SERVICE BOX AT THE BASE OF THE POLE SHALL BE #10 MIN. SOLID OR STRANDED COPPER. THE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO WORK SUCH THAT A REPRESENTATIVE SHALL BE PRESENT DURING ANY WORK WITHIN THE UTILITY COMPANY'S SERVICE BOX. WIRING FROM THE PULL BOX TO THE LUMINAIRE SHALL BE #12 MIN. SOLID OR STRANDED COPPER. VOLTAGE DROP FROM THE UTILITY COMPANY SERVICE BOX SHALL NOT EXCEED 5% VOLTAGE AT THE UTILITY COMPANY SERVICE BOX SHALL BE 120V (240V MAY BE USED IN CERTAIN CIRCUMSTANCES SUBJECT TO APPROVAL OF THE CITY ENGINEER). GROUNDING WIRE FROM THE LUMINAIRE TO THE GROUNDING ROD SHALL BE #8 BARE COPPER. AN IN-LINE FUSE IN THE UN-GROUNDED CONDUCTOR(S) ONLY AND A 0.3" X 8" LONG COPPER OR COPPER CLAD GROUNDING ROD SHALL BE LOCATED IN THE PULL BOX.

5. SPLICES IN THE PULL BOX SHALL BE TAPED AND WATERPROOFED WITH AN APPROVED ELECTRICAL COATING.

6. ALL POSTS TO BE SUITABLE FOR MOUNTING POST TOP LUMINAIRE WITH 3" I.D. (± 0.125") SUPPITER.

7. ALL CONCRETE SHALL BE CLASS "A".

8. STANDARD PLATE R15 IS TO BE USED ONLY FOR LOCAL STREETS IN RESIDENTIAL ZONES. LIGHTING MUST BE APPROVED BY THE PLANNING DIRECTOR.

RESOLUTION # 02–43

CITY OF ARVIN

STREET LIGHT POST TYPE

PLATE R15

REvised: NOV. 2002 SHT. 1 OF 1

City Engineer

Harold H. Haney
STERNBerg Plainfield 5716"T5/VG POLE WITH FLUTED BASE

1. STREET LIGHT IS TO BE PLACED BEHIND THE SIDEWALK IF THE SIDEWALK IS LESS THAN OR EQUAL TO 5' WIDE. THE STREET LIGHT IS TO BE PLACED 12" BEHIND THE CURB FACE IF THE SIDEWALK IS GREATER THAN 5' WIDE.

2. FIXTURE SHALL BE POST TOP TYPE, CAST ALUMINUM WITH VANDAL RESISTANT CLEAR ACRYLIC PLASTIC, MOGUL BASE PORCELAIN SOCKETS WITH ELECTRONIC PHOTOCELL BALLAST SHALL BE INSTANT START ELECTRONIC. REFRACTORS SHALL BE TYPE 3.

3. STANDARD PLATE R15 SHALL BE USED ONLY FOR LOCAL STREETS IN RESIDENTIAL ZONES. LIGHTING MUST BE APPROVED BY THE PLANNING DIRECTOR.

4. REFER TO PLATE 15A FOR PULL BOX DETAIL REQUIREMENTS.

5. ALL ELECTRICAL WORK EQUIPMENT AND MATERIALS, INCLUDING THEIR INSTALLATIONS SHALL CONFORM TO THE FOLLOWING APPLICABLE CODES:
   - NATIONAL ELECTRICAL CODE, LATEST EDITION
   - CALIFORNIA ELECTRICAL CODE, LATEST EDITION
   - OCCUPATIONAL SAFETY AND HEALTH ACT STANDARDS
   - COUNTY OF KERN AND CITY OF ARVIN CODES AND ORDINANCES

See "FOOTING DETAIL" for additional information.
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NOTES:

1. REMOVE COVER BEFORE PLACING CONCRETE. KEEP INSIDE OF BOX FREE OF OVERSPILL.

2. PULL BOX SHALL BE SIZE 3-1/2 AND SHALL BE LOCATED WITHIN 5' OF THE STREET LIGHT AND BE INSTALLED FLUSH WITH THE SIDEWALK. GRAVEL (0.75" MAX.) SHALL BE PLACED UNDER THE PULL BOX FOR DRAINAGE. PULL BOX COVER SHALL BE MARKED TO IDENTIFY IT AS STREET LIGHTING. PULL BOX SHALL BE PRECAST CONCRETE.

FINISH GRADE

6" CONCRETE COLLAR IF NOT LOCATED IN SIDEWALK—SLOPE AWAY FROM PULL BOX

WATERPROOF NEXT LOCATION TAGS

COMPACT AROUND SUBGRADE TOP 12" 90% REL DENSITY

#3 1/2 PRECAST CONCRETE PULL BOX

3/4" GRAVEL BED—8" MIN

1/2" TO 5/8" DIA. X 8' LONG MIN GROUNDING ROD

1.5" PVC SCH 40 ELECTRIC CONDUIT 12" MIN. RADIUS

COIL CONDUCTORS AND SECURE FUSE HOLDER AND SPLICES AT TOP OF PULL BOX WITH CABLE TIES. WATERPROOF IN-LINE FUSE HOLDER. (AT STREET LIGHT PULL BOX ONLY)

1.5'-2.0' SLACK WIRE BETWEEN CONNECTIONS

DUCT SEAL PLUG

#8 BARE SOLID GROUND WIRE

DIRECT BURIAL GROUND CLAMP

WATERPROOF SPLICES

REVISION: MARCH 2012  SHT. 1 OF 1
NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

2. CASTINGS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR GREY-IRON CASTINGS, SERIAL DESIGNATION ASTM: (LATEST) A48, CLASS NO. 308.

3. ALL FRAMES AND COVERS SHALL BE TOUGH, GREY CAST IRON, FREE FROM WARP, CRACKS, SWELLS, AND COLD SHEET, AND SHALL HAVE A WORKMANLIKE FINISH.

4. THE SEATS OF FRAMES AND BEARING FACES OF THE COVERS SHALL BE MACHINED FOR A SMOOTH, NON-ROCKING FIT BETWEEN THE TWO CASTINGS.

5. CASTING SHALL BE THOROUGHLY CLEANED AND DIPPED TWICE IN A PREPARATION OF ASPHALT OR COAL TAR AND OIL APPLIED AT 300-5 TO FORM A FIRM AND TENACIOUS SEAL.

6. CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND COMPLYING WITH SECTION 90-7.018 OF STANDARD SPECIFICATIONS.

7. THE SURFACE SHALL BE FINISHED TO GRADE, TROWELED SMOOTH, AND GIVEN A LIGHT BROOM FINISH.

8. ALL CONCRETE USED SHALL BE CLASS "A".

9. THE NAME OF THE MANUFACTURING COMPANY SHALL BE ON THE UNDERSIDE OF THE COVER.

10. PIPE CASING SHALL BE 10" I.D. STEEL OR AS DIRECTED BY THE CITY ENGINEER.
1. ALL FENCES WITHIN THE RIGHT OF WAY AT INTERIOR LOT SHALL BE A MAXIMUM HEIGHT OF 4'-0'.
SEE PLATE R19 FOR CONSTRUCTION DETAILS.
2. OBTAIN APPROVAL FROM UTILITY COMPANIES PRIOR TO BUILDING PERMIT APPROVAL FOR POSSIBLE UTILITY CONFLICTS.
NOTE:

1. ALL FENCES WITHIN THE RIGHT-OF-WAY SHALL BE A MAXIMUM HEIGHT OF 4’-0’ EXCEPT IN THE SIGHT TRIANGLE.
   THE MAXIMUM HEIGHT IN THE SIGHT TRIANGLE SHALL BE 3’-0’. SEE PLATE R19 FOR CONSTRUCTION DETAILS.

2. OBTAIN APPROVAL FROM UTILITY COMPANIES PRIOR TO BUILDING PERMIT APPROVAL FOR POSSIBLE UTILITY CONFLICTS.
SECTION - (A)  
NOT TO SCALE

NOTE:
1. Obtain approval from utility companies prior to building permit approval for possible utility conflicts.

COLUMN ONLY  
NOT TO SCALE

NOTE:
1. Obtain approval from utility companies prior to building permit approval for possible utility conflicts.

CONTINUOUS WALL ONLY  
NOT TO SCALE

RESOLUTION # 02-43

CITY OF ARVIN

DECORATIVE WALL CONSTRUCTION DETAILS

PLATE R19

REVISED: NOV. 2002 SHT. 1 OF 1
90 DEGREE PARKING

60 DEGREE PARKING

45 DEGREE PARKING

30 DEGREE PARKING

NOTE:
1. PARKING STALL DIMENSIONS ARE 9' WIDE BY 20' IN LENGTH (TYPICAL)
2. SEE R21 FOR PARKING BUMPER DETAIL

TYPICAL DIMENSIONS
FOR MID SIZE CAR

TYPICAL DIMENSIONS
FOR FULL SIZE TRUCK

NOT TO SCALE
NOTE:
SECURED WITH # 5 REBAR, 12" INTO GRADE (TYPICAL)
1. STANDARD W-31—END 24" X 24" REFLECTORIZED.
2. STANDARD N-2 (RED) 18" X 18".
3. 2 X 10, S4S, DOUGLAS FIR, NO. 2 OR BETTER.
4. 4 X 4, S4S, DOUGLAS FIR, NO. 2 OR BETTER, OR 2-1/2" GALV. PIPE.
5. FASTEN EACH RAIL TO EACH POST WITH 2-3/8" GALV. BOLTS, WASHERS AND NUTS.
6. ORANGE AND WHITE STRIPES, 6" WIDE, REFLECTORIZED
7. PAINT ALL OTHER SURFACES WITH TWO (2) COATS OF GOOD QUALITY WHITE EXTERIOR PAINT.
8. FILL POST HOLES WITH TYPE B CONCRETE (5 SACK MIX).
9. STANDARD W-56 OR W-57 18" X 36" REFLECTORIZED
10. STANDARD N-1 (YELLOW) 18" X 18" REFLECTORIZED.

W-31 = STATE SIGN STANDARD
W-56 = STATE SIGN STANDARD
W-57 = STATE SIGN STANDARD
N-1 = STATE SIGN STANDARD
N-2 = STATE SIGN STANDARD
S4S = SURFACE FOUR (4) SIDES

NOTES:
1. PLACE BARRICADE CENTERED ON STREET AT END.
2. PLACE SIGNS ON POST CENTERED ON APPROACH LANE(S).
3. SIGNS SHALL BE AS MANUFACTURED BY HAWKINS-HAWKINS, BERKELEY, CALIFORNIA, OR APPROVED EQUAL.
4. THE DECISION AS TO WHICH TO USE (BARRICADE OR SIGN) SHALL BE BASED ON RECOMMENDATION OF THE CITY ENGINEER.

NTS

END OF STREET BARRICADE

REVISED: DECEMBER 2007 BY: JMP
SHT. 1 OF 1
WHERE INCOMING AND OUTGOING SEwers IN A MANHOLE VARY IN SIZE EXTEND LOWER HALVES OF SEwers 8" BEYOND INSIDE OF WALL SHAPE TRANSITION CHANNEL BETWEEN ENDS OF LOWER HALVES OF PIPES.

WHERE INCOMING AND OUTGOING SEwers IN A MANHOLE AREA OF THE SAME DIAMETER, THE TOP HALF OF PIPE SHALL ONLY BE REMOVED BETWEEN WALLS AND THE BROKEN EDGES SHALL BE PLASTERED SMOOTH WITH CEMENT MORTAR.

CLASS "A" CONCRETE SLAB NOT TO BE POURED UNTIL PAVING IS IN PLACE. SLAB AND LID TO BE 0.125" TO 0.25" BELOW NEW FINISHED PAVING.

R=0.5"

2" MIN.

2:1 MORTAR, DRY PACKED

NOTES:

1. ALL CONCRETE USED SHALL BE CLASS "A".
   (6 SACK TYPE 2-5)

2. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

3. ALL UNLINED MANHOLE JOINTS SHALL BE FILLED WITH KENT SEAL OR APPROVED BLACK MASTIC EQUAL INSIDE OF MANHOLES MUST BE MORTARED AND NEATLY RADED OR WIPED ON INSIDE OF PIPE.

4. PRECAST REINFORCED MANHOLE SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ASTM C-478, CURRENT EDITION.

5. ALL SEWER MANHOLEs SHALL BE LINED WITH "T-LOCK" OR APPROVED EQUAL.

6. CONCRETE PAD SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND AS PER SECTION 90-7.01B OF THE STANDARD SPECIFICATIONS.

7. SEE STANDARD PLATE S2 FOR FRAME AND COVER DETAILS.

8. ALL CHANNELS SHALL BE SMOOTH FINISHED WITH STEEL TROWEL. SHELF SHALL BE BROOCH FINISHED FOR SLIP RESISTANCE.

RESOLUTION #

CITY OF ARVIN

MANHOLE TYPE 'A'

CITY ENGINEER

PLATE S1

REVISED: NOV. 2015 SHT. 1 OF 1
The upper portions of incoming and outgoing sewers shall be removed and the broken edges shall be plastered smooth with cement mortar.

NOTE: Class "A" concrete (6 sack type 2-4) slab not to be poured until paving is in place.

Notes:
1. All work shall conform to the applicable sections of the specifications entitled "Standard Specifications, State of California, Department of Transportation", current edition.
2. All unlined manhole joints shall be filled with Kent Seal or approved black mastic equal inside of manholes must be mortared and neatly raked wiped on inside of pipe.
3. Precast reinforced manhole sections shall be constructed in accordance with the provisions of ASTM C-478, current edition.
4. All sewer manholes shall be lined with "T-lock" or approved equal.
5. Concrete pad shall be cured with a white pigmented curing compound as per section 90-7.01 B of the standard specifications.
6. See standard plate S2 for frame and cover details.
7. All channels shall be smooth finished with steel trowel. Shelf shall be broom finished for slip resistance.
NOTES:

1. ALL WORK SHALL CONFORM TO THE
   SECTIONS OF THE SPECIFICATIONS ENTITLED
   "STANDARD SPECIFICATIONS, STATE OF
   CALIFORNIA, DEPARTMENT OF TRANSPORTATION",
   CURRENT EDITION.

2. DROP MANHOLES WILL ONLY BE ALLOWED
   WITH THE APPROVAL OF THE CITY ENGINEER.

3. PRECAST REINFORCED MANHOLE SECTIONS
   SHALL BE CONSTRUCTED IN ACCORDANCE WITH
   PROVISIONS OF ASTM C-478, CURRENT EDITION.

4. DROP MANHOLE IS ONLY ALLOWED IF DROP
   DISTANCE IS 30' OR GREATER.

* MAXIMUM SLOPE ALLOWED INSIDE MANHOLE
SAWCUT AND FINISH
0.5 RAD.

2' x 2' SQUARE CONCRETE SURFACE PAD

CLASS "A" CONCRETE SLAB NOT TO BE POURED UNTIL PAVING IS IN PLACE

SAWCUT AND FINISH
0.5 RAD.

8" DIA. x 7" PIPE COLLAR

MOLDED RUBBER COMPRESSION COUPLING WITH STAINLESS STEEL CLAMPS

95% RELATIVE COMPACTION AROUND CEMENT

6" PVC PIPE

CONSTRUCT SURFACE PAD ONLY WHERE PERMANENT TYPE PAVING EXISTS.

STANDARD 0.125 BEND

CLOSING VALVE

REMOVABLE PLUG

CLEANOUT SECTION

PLAN

NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

2. PIPE MATERIAL SHALL MEET PVC SEWER GRADE SDR35.

3. ALL CONCRETE SHALL BE CLASS "A", (6 SACK TYPE 2-4)

4. CONCRETE SHALL HAVE NO ADDITIVES UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY ENGINEER.

5. TOP OF SLAB SHALL BE TROWELED SMOOTH AND GIVEN A LIGHT BROOM FINISH.

6. 95% RELATIVE COMPACTION IS REQUIRED AT CONSTRUCTION AREA.

7. FILL CAVITY BETWEEN PIPE AND COLLAR WITH GRAVEL TO WITHIN 0.5" OF TOP OF PIPE. CAULK REMAINING 0.5" WITH APPROVED MASTIC TO TOP OF PIPE FOR WATER TIGHT SEAL.

8. COLLAR SHALL BE VCPI, ABS OR PVC PIPE.

9. FINISHED CLASS "A" CONCRETE SLAB TO BE 0.125" MIN. AND 0.25" MAX BELOW FINISHED PAVING SURFACE.
NOTES:

1. FOR PIPES 6" TO 12" IN DIAMETER, A LICENSED CONTRACTOR WHO HAS THE PROPER EQUIPMENT AND PERMITS IS CONSIDERED AN APPROVED AGENT AND MAY CORE INTO THE CITY'S LINES OR REMOVE A SECTION AND CONSTRUCT A WYE OR TEE. FOR PIPES 15" OR LARGER, A MANHOLE MUST BE CONSTRUCTED WHERE CORINGS ARE MADE. THE CITY INSPECTOR MUST OBSERVE THE INSTALLATION OF SADDLES TO CORES.

2. VITRIFIED CLAY PIPE SADDLES SHALL BE EXTRA STRENGTH CLAY PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF THE WEST COAST STANDARDS OF THE CLAY PIPE INSTITUTE.

3. VCP SADDLES MAY HAVE EITHER LUGS OR COLLARS.

4. THE BELL SHALL BE TRUE, CIRCULAR AND CONCENTRIC WITH THE BORE OF THE PIPE AND SHALL BE SCORED ON THE INSIDE OF ITS ENTIRE DEPTH.

5. OPENINGS IN EXISTING SEWER SHALL BE MADE ONLY LARGE ENOUGH TO ADMIT ALL OF SADDLE FITTING. LUGS OR COLLARS NOT RESTING ON PIPE SHALL BE BLOCKED UP AND SEALED WITH EPOXY GLUE.

6. ALL INSTALLATIONS SHALL BE INSPECTED BY PUBLIC WORKS DEPARTMENT OF THE CITY PRIOR TO BACKFILL.

7. FOR PVC AND ABS PIPE, FITTINGS SHALL BE INJECTION MOLDED AND SHALL BE INSTALLED IN LINE ON NEW PIPELINES; CUT-IN FITTINGS ARE NOT PERMITTED ON NEW SUBDIVISIONS OR NEW MAIN LINES.

8. PVC OR ABS SADDLES SHALL BE RUBBER GASKETED AND SHALL BE FASTENED BY STAINLESS STEEL BANDS.
SEWER DESIGN STANDARDS

A. SIZE—MINIMUM SEWER MAIN SIZE SHALL BE 8” INSIDE DIAMETER.
AVERAGE DAILY FLOW—SINGLE FAMILY RESIDENCE = 350 GPD; MOBILE HOMES AND APARTMENTS = 250 GPD.
OTHER USES BASED ON FIXTURE UNITS CONNECTED OR OTHER METHOD ACCEPTABLE TO THE CITY ENGINEER.

B. PEAK FLOW—FOR SEWER CAPACITY DESIGN = 1.8 TIMES AVERAGE DAILY FLOW.

C. DEPTH OF FLOW FOR SEWER CAPACITY DESIGN = 1/2 FULL

D. VELOCITY OF FLOW—SLOPE SO THAT MINIMUM VELOCITY = 2 FPS.

E. MAXIMUM SLOPE—SLOPE SO THAT VELOCITY DOES NOT EXCEED 10 FPS.

F. ALL FLOW CALCULATIONS SHALL BE BASED ON MANNING’S “N” OF 0.011 FOR PVC AND 0.013 FOR ALL OTHER PIPE.

G. MANHOLES—PROVIDE AT ALL MAIN LINE SEWER INTERSECTIONS AND ALL CHANGES IN ALIGNMENT OR GRADE.
MAXIMUM DISTANCE BETWEEN MANHOLES = 300 FEET. (GREATER DISTANCES MAY BE APPROVED AT THE
DISCRETION OF THE CITY ENGINEER.) PROVIDE 0.1 FEET DROP THROUGH MANHOLE WHEN ANGLE IN
SEWER IS GREATER THAN 45°. MATCH PIPE TOPS WHERE SIZE CHANGES. WHEN INVERT ELEVATIONS
ARE GREATER THAN 30°, PROVIDE DROP MANHOLE CONNECTION.

H. ALIGNMENT—SEWER LINES SHALL BE ON STRAIGHT ALIGNMENT AND GRADE BETWEEN MANHOLES, AND
GRADE VERIFIED WITH A STRING LINE IN THE TRENCH. CURVED SEWERS SHALL BE ALLOWED ONLY WHEN
THEIR NecessITY IS DEMONSTRATED AND THE DESIGN IS APPROVED BY THE CITY ENGINEER.

I. COVER—MINIMUM = 3 FEET IN STREETS WITH SURCHARGE LOADS AND 3 FEET IN EASEMENTS
WITH NON SURCHARGE LOADS.

J. LOCATION—SEWERS ARE USUALLY PLACED IN STREET AREA 5 FEET OFF CENTERLINE BUT NOT CLOSER
THAN 2 FEET TO TOP OF GUTTER AND NOT UNDER SIDEWALK. ALL OTHER UTILITIES (EXCEPT WATER) ARE
TO BE CLEARED BY 6” VERTICALLY (MIN.). IN ALLEY AREAS, SEWERS SHALL BE LOCATED 4 FEET FROM
THE ALLEY INVERT TO PREVENT INFILTRATION.

K. SEPARATION—SEWER AND WATER MAIN HORIZONTAL SEPARATION SHALL BE A MINIMUM OF 10 FEET.
WATER AND SEWER MAINS SHALL BE LAID IN SEPARATE TRENCHES WITH THE WATER MAIN AT A HIGHER
ELEVATION. WHEN WATER AND SEWER MAINS CROSS, THE BOTTOM OF THE WATER MAIN SHALL BE 12” MIN.
ABOVE THE TOP OF THE SEWER MAIN.

L. SEWER EASEMENTS—ALLOWED ONLY WHEN NO OTHER LOCATION IS FEASIBLE. EASEMENTS SHALL BE
GRANTED TO THE CITY ON THE FINAL MAP; BE A MINIMUM OF 15 FEET WIDE AND WIDER WHERE TERRAIN
DEPTH, ACCESS, CLEARANCE, ETC., DICTATES; INCLUDE THE RIGHT OF ACCESS OVER ADJOINING
PROPERTY FOR MAINTENANCE, REPLACEMENT AND OPERATION; NOT ALLOW PERMANENT STRUCTURES EXCEPT FENCES.

M. BUILDING SEWER LATERALS—MIN. SIZE = 4” INSIDE DIA., OR AS GOVERNED BY THE UNIFORM
PLUMBING CODE. LATERALS SHALL BE RUN TO PROPERTY LINE AND PLUGGED AND LOCATION MARKED UNLESS
THEY ARE TO BE IMMEDIATELY CONNECTED TO A BUILDING SEWER. MIN. SLOPE = 1/4” PER FOOT. MIN.
COVER IN STREET ROW = 3.0 FEET.

N. MATERIALS—THE CONTRACTOR SHALL SUPPLY CERTIFICATES AND TESTS AS REQUIRED TO ASSURE THE
DEPARTMENT OF PUBLIC WORKS THAT THE MATERIAL SUPPLIED MEETS THESE REQUIREMENTS. ALL PIPE AND
FITTINGS SHALL BE STAMPED WITH THE MANUFACTURER’S TRADE NAME AND THE STRENGTH AND CLASS OF PIPE.

O. PLASTIC SEWER PIPE—PLASTIC SEWER PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM
SPECIFICATIONS D3034 FOR SDR 35, WITH INTEGRAL WALL BELL AND SPIGOT JOINTS AND ELASTOMERIC GASKET
JOINTS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS.
SEWER DESIGN STANDARDS (CONT.)

P. SPECIAL EQUIPMENT AND STRUCTURES – PUMP STATIONS, PRESSURE LINES, INVERTED SIPHONS (SAGS), ETC., SHALL BE APPROVED BY THE CITY ENGINEER.

Q. TESTING – ALL NEWLY INSTALLED SEWERS SHALL BE TESTED USING EITHER THE HYDROSTATIC, INFILTRATION OR AIR METHOD. THE DEVELOPER OR CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR AND MATERIAL AND SHALL PERFORM ALL TESTS TO THE REQUIREMENTS AND SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS. PRIOR TO TESTING THE MAIN SHALL BE "BALED" FROM MANHOLE TO MANHOLE WITH A SEWER SCRUBBING BALL OF A TYPE AND SIZE APPROVED BY THE CITY ENGINEER.

1. HYDROSTATIC – EACH SECTION OF A SANITARY SEWER, BETWEEN TWO SUCCESSIVE STRUCTURES, SHALL BE TESTED BY CLOSING THE LOWER END OF THE SEWER TO BE TESTED AND THE INLET SEWER OF THE UPPER STRUCTURE WITH PLUGS OR STOPPERS, AND FILLING THE PIPE OR STRUCTURES WITH WATER TO A POINT ONE FOOT ABOVE THE SOFFIT OF THE SEWER IN THE UPPER STRUCTURE OR TO ONE FOOT ABOVE THE TOP OF THE LATERALS, WHICHEVER IS HIGHER. THIS HEAD SHALL BE MAINTAINED A MINIMUM OF ONE HOUR. IF DURING THAT PERIOD THE LEAKAGE DOES NOT EXCEED THE RATE OF THREE GALLONS PER HOUR PER INCH OF DIAMETER PER 1,000 FEET OF PIPE, THEN THE SEWER WOULD BE CONSIDERED SATISFACTORILY TESTED.

2. INFILTRATION TEST – IF EXCESSIVE GROUND WATER IS ENCOUNTERED, THE UPPER STRUCTURE SHALL BE CLOSED SUFFICIENTLY TO PREVENT THE ENTRANCE OF WATER, AND PUMPING OF GROUND WATER SHALL BE DISCONTINUED FOR AT LEAST 3 DAYS AFTER WHICH THE SECTION SHALL BE TESTED FOR INFILTRATION. THE INFILTRATION SHALL NOT EXCEED THREE GALLONS PER HOUR PER INCH OF DIAMETER PER 1,000 FEET OF MAIN LINE SEWER BEING TESTED AND DOES NOT INCLUDE THE LENGTH OF HOUSE LATERAL ENTERING THAT SECTION. ALL TESTS MUST BE COMPLETE BEFORE STREET OR TRENCH IS RESURFACED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3. AIR TEST – AIR TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS PROJECTS, CURRENT EDITION.

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<th>PIPE SIZE</th>
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