STANDARD CURB & 24" GUTTER

NOTES

1. ALL CURBS ON PRIVATE STREETS AND PARKING LOTS SHALL BE TO CITY STANDARDS.

2. ALL CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.

3. CONCRETE SHALL BE BRUSH FINISHED PARALLEL TO FACE OF CURB.

4. ALL CURBS SHALL BE BACKFILLED BEFORE STREET IS ROCKED & PAVED.

5. CLASS 2 AGGREGATE BASEROCK, SUBGRADE & FILL MATERIAL IF ANY SHALL HAVE A MINIMUM OF 95% RELATIVE COMPACTION UNDER CURB & GUTTER.

6. ON STRAIGHT RUN OF STD. CURB & GUTTER, 1/2" EXPANSION JOINTS, SHALL BE INSTALLED AT 40' OC, & WEAK PLANE JOINTS, INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.


8. SUBGRADE AND CLASS 2 A.B. SHALL EXTEND TO ONE FOOT BEHIND CURB AND GUTTER.

9. EXTRUDED CURB AND GUTTER SHALL HAVE WEAK PLANE JOINTS AT 12' ON CENTER.

10. UTILITY IDENTIFICATION SYMBOLS ("S" FOR SANITARY SEWER AND "W" FOR WATER UTILITIES) SHALL BE STAMPED WHERE UNDERLYING UTILITIES ARE IDENTIFIED. SYMBOLS SHALL BE ½" DEEP, 3" HIGH PLACE ON TOP OF CURB AND FACE OF CURB.
STANDARD CURB & 12" GUTTER

NOTE:
EDGER FINISH ALL EXPANSION & WEAK PLANE JOINTS. SLIP DOWELS INSTALLED AT ALL EXPANSION JOINTS.

1. THIS STD. TO BE USED WHERE EXISTING GUTTER IS 12'. ALL NEW CURB AND GUTTER SHALL BE PER CITY STD. S-1.
2. ALL CURBS ON PRIVATE STREETS AND PARKING LOTS SHALL BE TO CITY STANDARDS.
3. ALL CONCRETE SHALL BE CLASS "A" (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.
4. CONCRETE SHALL BE BRUSH FINISHED PARALLEL TO FACE OF CURB.
5. ALL CURBS SHALL BE BACKFILLED BEFORE STREET IS ROCKED AND PAVED.
6. CLASS 2 AGGREGATE BASEROCK, SUBGRADE AND FILL MATERIAL IF ANY SHALL HAVE A MINIMUM OF 95% RELATIVE COMPACTION UNDER CURB AND GUTTER.
7. ON STRAIGHT RUN OF STD. CURB AND GUTTER, 1/2" EXPANSION JTS. SHALL BE INSTALLED ON 40' CC, & WEAK PLANE JTS. INSTALLED MIDWAY BETWEEN EXPANSION JTS.
9. SUBGRADE AND CLASS 2 A.B. SHALL EXTEND TO ONE FOOT BEHIND CURB AND GUTTER.
10. EXTENDED CURB AND GUTTER SHALL HAVE WEAK PLANE JOINTS AT 12' ON CENTER.
NOTES

1. ALL CURBS INSTALLED ON PRIVATE PROPERTY SHALL BE TO CITY STDS.

2. ALL PORTLAND CEMENT CONCRETE (PCC) SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.

3. PORTLAND CEMENT CONCRETE SHALL BE BRUSH FINISHED PARALLEL TO FACE OF CURB.

4. ALL CURBS SHALL BE BACKFILLED BEFORE STREET IS ROCKED AND PAVED.

5. CLASS 2 AB, SUBGRADE & FILL MATERIAL SHALL HAVE A MINIMUM OF 95% COMPACTION UNDER CURB.

6. ON STRAIGHT RUN OF CURB, 1/2" EXPANSION JOINTS SHALL BE INSTALLED ON 40' C.C. & WEAK PLANE JOINTS INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
Curb Transitions

Plan View
Rolled Curb to 2' Gutter Transition in Straight Curb

If existing rolled curb extends beyond this point, it must be removed here to install transition section.

Plan View
Rolled Curb to 2' Gutter Transition at Curb Return

Plan View
1' Gutter to 2' Gutter Transition in Straight Curb
NOTES

1. ALL CONCRETE TO BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4” AGGREGATE.
2. NEW CLASS II AGGREGATE BASE REQUIRED FOR ALL CONSTRUCTION.
3. ALL SIDEWALKS SHALL BE 4’ THICK. SIDEWALKS SHALL BE 6” THICK AT DRIVEWAYS.
4. ON STANDARD SIDEWALKS, 1/2” EXPANSION JOINTS SHALL BE INSTALLED AT 40’ ON CENTER AND WEAK PLANE JOINTS SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS. ON CURB ADJACENT SIDEWALKS, EXPANSION JOINTS AND WEAK PLANE JOINTS SHALL BE ALIGNED WITH THE EXPANSION JOINTS IN THE CURB AND GUTTER.
5. TRANSVERSE SCORE LINES SHALL BE INSTALLED AT 4’ INTERVALS ON 4’ RESIDENTIAL AND 5’ COMMERCIAL SIDEWALKS. FOR 5.5’ ADJACENT SIDEWALKS, SCORE LINES SHALL BE INSTALLED AT 5’ INTERVALS.
6. EXPANSION JOINTS SHALL BE INSTALLED AT ALL UTILITY BOXES AS DIRECTED BY THE ENGINEER.
7. COMPACTION TESTS ARE REQUIRED ON NATIVE SUBGRADE AND CLASS II AB FOR ALL CONSTRUCTION.
8. FOR ADJACENT SIDEWALK AND BUSINESS OR COMMERCIAL SIDEWALKS, STREET TREE WELLS SHALL BE FIELD LOCATED BY THE ENGINEER PRIOR TO POURING SIDEWALK.
9. ALL SIDEWALKS SHALL MAINTAIN A 4’ A.D.A. PATH OF TRAVEL WITHOUT OBSTRUCTIONS.
NOTES

1. Widen sidewalk around fire hydrant as required to provide minimum 4' clear path along pedestrian route of travel.

2. Right of way widening to be dedicated as required to contain widened sidewalk entirely within city right of way.

**SIDEWALK CONNECTION**

- Drill hole 6" deep into EX SW for #4 rebar (typ).
- Sawcut and install 1/2" expansion joint with joint filler.

**CURB AND GUTTER CONNECTION**

- Drill hole 6" deep into EX CURB for #4 rebar (typ).
- Sawcut and install 1/2" expansion joint with joint filler.

**NOTES**

1. For all curb and gutter connections, adjust curb face height as necessary to match existing curb.

**CONCRETE COLLAR CONNECTION**

- #4 bars @ 12" OC
- 3" clear (typ)
- 6" MIN
- 2 - #4 hoops
- PCC collar
- (E) pipe
- (N) pipe
NOTES

1. EXISTING CURB, GUTTER AND SIDEWALK SHALL BE CUT AT THE FIRST SCORE LINE BEYOND THE NEW DRIVEWAY LOCATION WITH AN ABRASIVE TYPE SAW TO A MINIMUM DEPTH OF 1/2". THE OLD CURB, GUTTER AND SIDEWALK SHALL BE ENTIRELY REMOVED AND REPLACED WITH 4000 PSI (6 SACKS PER CY) CONCRETE AS SHOWN.

2. 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED ALONG EACH SIDE OF ALL NEW DRIVEWAY APPROACHES. WHERE SIDEWALKS, CURBS AND GUTTERS ARE EXISTING COLD JOINTS OR SLIP DOWELS MAY BE SUBSTITUTED.

3. A TRAVERSE WEAK PLANE JOINT SHALL BE INSTALLED ON THE CENTERLINE OF ALL DRIVEWAYS. THE LONGITUDINAL LINE, AS SHOWN, SHALL BE A WEAK PLANE JOINT 4' FROM BACK OF SIDEWALK. SCORE LINES SHALL BE PLACED ONLY IN THIS 4' SIDEWALK AREA.

4. NEW DRIVEWAY APPROACHES SHALL NOT ENCROACH WITHIN 10' OF CURB RETURNS. MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN COMMERCIAL APPROACHES SHALL BE 20 FEET.

5. ABANDONED DRIVEWAY APPROACHES SHALL BE REMOVED AND REPLACED WITH STANDARD CURB AND GUTTER.

6. WHERE EXISTING FACILITIES ARE NON-CONFORMING, APPROACHES MAY BE MODIFIED AS DIRECTED BY THE CITY ENGINEER.

7. INSTALL 1/2" EXPANSION JOINT WHEN CONCRETE IS TO BE INSTALLED BEHIND DRIVEWAY APPROACH.

8. RAMP LENGTH CAN VARY (1.5' MINIMUM) AS REQUIRED TO SATISFY A.D.A. REQUIREMENTS FOR CURB ADJACENT SIDEWALK UPON APPROVAL BY THE CITY ENGINEER. SEE STANDARD DRAWING S-5A.

9. ALL CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.
NOTES

1. EXISTING CURB, GUTTER AND SIDEWALK SHALL BE CUT AT THE FIRST SCORE LINE BEYOND THE NEW DRIVEWAY LOCATION WITH AN ABRASIVE TYPE SAW TO A MINIMUM DEPTH OF 1 1/2". THE OLD CURB, GUTTER AND SIDEWALK SHALL BE ENTIRELY REMOVED AND REPLACED WITH 4000 PSI (6 SACKS PER CY) CONCRETE AS SHOWN.

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7. INSTALL 1/2" EXPANSION JOINT WHEN CONCRETE IS TO BE INSTALLED BEHIND DRIVEWAY APPROACH.

8. RAMP LENGTH CAN VARY (1.5' MINIMUM) AS REQUIRED TO SATISFY A.D.A. REQUIREMENTS FOR CURB ADJACENT SIDEWALK UPON APPROVAL BY THE CITY ENGINEER.

9. ALL CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.
NOTES

1. EXISTING CURB, GUTTER AND SIDEWALK SHALL BE CUT AT THE FIRST SCORE LINE BEYOND THE NEW DRIVEWAY LOCATION WITH AN ABRASIVE TYPE SAW TO A MINIMUM DEPTH OF 1 1/2". THE OLD CURB, GUTTER AND SIDEWALK SHALL BE ENTIRELY REMOVED AND REPLACED WITH 4000 PSI (6 SACKS PER CY) CONCRETE AS SHOWN.

2. 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED ALONG EACH SIDE OF ALL NEW DRIVEWAY APPROACHES. WHERE SIDEWALKS, CURBS AND GUTTERS ARE EXISTING COLD JOINTS OR SLIP DOWELS MAY BE SUBSTITUTED.

3. A TRAVERSE WEAK PLANE JOINT SHALL BE INSTALLED ON THE CENTERLINE OF ALL DRIVEWAYS. THE LONGITUDINAL LINE, AS SHOWN, SHALL BE A WEAK PLANE JOINT 4' FROM BACK OF SIDEWALK. SCORE LINES SHALL BE PLACED ONLY IN THIS 4' SIDEWALK AREA.

4. ABANDONED DRIVEWAY APPROACHES SHALL BE REMOVED AND REPLACED WITH STANDARD CURB AND GUTTER.

5. WHERE EXISTING FACILITIES ARE NON-CONFORMING, APPROACHES MAY BE MODIFIED AS DIRECTED BY THE CITY ENGINEER.

6. INSTALL 1/2" EXPANSION JOINT WHEN CONCRETE IS TO BE INSTALLED BEHIND DRIVEWAY APPROACH.

7. ALL CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.

CITY OF NAPA

STANDARD DRIVEWAY APPROACH - WITH CURB RAMPS

PUBLIC WORKS DEPARTMENT

DRAWN BY: LFM
DATE: 09/2018
APPROVED BY: JRL

CHECKED BY: JGF
SCALE: NONE
DRAWING NO. S-5B
FIELD NOTES:
NOTES
1. MEDIAN CURBS SHALL BE A1-6 PER CITY STD. S-2.
2. MEDIAN SURFACING IS TO BE SHOWN ON THE PLANS & SPECIFICATIONS.
3. BIKE LANE - SEE FUTURE BIKEWAY MAP FIGURE 3-5 IN THE GENERAL PLAN FOR BIKE LANE LOCATIONS. IF BIKE LANE ARE NOT REQUIRED, THE RIGHT OF WAY WIDTH MAY BE REDUCED ACCORDINGLY.
4. BIKE ROUTES - SEE FUTURE BIKEWAY MAP FIGURE 3-5 IN THE GENERAL PLAN FOR CLASS 3 (BIKE ROUTE) LOCATIONS. STREETS DESIGNATED AS CLASS 3 BIKE ROUTES SHALL HAVE 14' WIDE OUTSIDE TRAVEL LANES.
5. SEE CITY STD. S-4 FOR SIDEWALK (SW) AND LANDSCAPE (LS) AREA STANDARDS.
6. SEE GENERAL PLAN: CHAPTER 3: TRANSPORTATION, TABLE 3-3 "CLASSIFICATION OF FUTURE ROADWAY SYSTEM" TO IDENTIFY THOSE STREETS THAT ARE CLASSIFIED AS COLLECTORS AND ARTERIALS.
NOTES

1. BIKE LANES - SEE FUTURE BIKEWAY MAP FIGURE 3-5 IN THE GENERAL PLAN FOR BIKE LANE LOCATIONS. IF BIKE LANES ARE NOT REQUIRED, THE RIGHT OF WAY WIDTH MAY BE REDUCED ACCORDINGLY.

2. BIKE ROUTES - SEE FUTURE BIKEWAY MAP FIGURE 3-5 IN THE GENERAL PLAN FOR CLASS 3 (BIKE ROUTE) LOCATIONS. STREETS DESIGNATED AS CLASS 3 BIKE ROUTES SHALL HAVE 14' WIDE OUTSIDE TRAVEL LANES.

3. SEE CITY STD. S-4 FOR SIDEWALK AND LANDSCAPE AREA STANDARDS.

4. SEE GENERAL PLAN; CHAPTER 3: TRANSPORTATION, TABLE 3-3 "CLASSIFICATION OF FUTURE ROADWAY SYSTEM" TO IDENTIFY THOSE STREETS THAT ARE CLASSIFIED AS COLLECTORS AND ARTERIALS.
NOTES

1. TYPE "A" COLLECTORS SERVE RESIDENTIAL, MIXED USE PROJECTS AND COMMERCIAL PROJECTS. TYPE "B" COLLECTORS SERVE CORPORATE PARK AND INDUSTRIAL PROJECTS.

2. BIKE LANES - SEE FUTURE BIKEWAY MAP FIGURE 3-5 IN THE GENERAL PLAN FOR BIKE LANE LOCATIONS. IF BIKE LANES ARE NOT REQUIRED, THE RIGHT OF WAY WIDTH MAY BE REDUCED ACCORDINGLY.

3. BIKE ROUTES - SEE FUTURE BIKEWAY MAP FIGURE 3-5 IN THE GENERAL PLAN FOR CLASS 3 (BIKE ROUTE) LOCATIONS. STREETS DESIGNATED AS CLASS 3 BIKE ROUTES SHALL HAVE 14' WIDE OUTSIDE TRAVEL LANES.

4. SEE CITY STD. S-4 FOR SIDEWALK (SW) AND LANDSCAPE (LS) AREA STANDARDS.

5. SEE GENERAL PLAN; CHAPTER 3: TRANSPORTATION, TABLE 3-3 "CLASSIFICATION OF FUTURE ROADWAY SYSTEM" TO IDENTIFY THOSE STREETS THAT ARE CLASSIFIED AS COLLECTORS AND ARTERIALS.

CITY OF NAPA
PUBLIC WORKS DEPARTMENT

STREET STANDARD
COLLECTORS

DRAWN BY: LFM
DATE: 06/2018
SCALE: NONE
FIELD NOTES:

CHECKED BY: JGF
APPROVED BY: JRL
DRAWING NO. S-6C
NOTES

1. SEE CITY STD. S-4 FOR SIDEWALK (SW) AND LANDSCAPE (LS) AREA STANDARDS.

2. TYPE A LOCAL STREETS ARE TYPICALLY DOUBLE LOADED SERVING RESIDENCES ON BOTH SIDES OF THE STREET.

3. TYPE B LOCAL STREETS ARE TYPICALLY SINGLE LOADED WITH RESIDENCES ON THE PARKING SIDE OF THE STREET.

4. TYPE C LOCAL STREETS ARE TYPICALLY USED FOR THE NON-LOADED (NO RESIDENCES OR DRIVEWAYS FRONTING THE STREET) PORTIONS ON THE STREET THAT CONNECT OR LEAD TO DEVELOPED PORTIONS OF THE SITE.

5. STREET CROSS SECTIONS MAY BE WIDER THAN INDICATED AS NECESSARY TO CONFORM TO THE SIGHT DISTANCE AND VISIBILITY STANDARDS, PARKING REQUIREMENTS, VEHICLE BACKUP AND TURNAROUND MOVEMENTS, AND FIRE DEPARTMENT TURNING MOVEMENTS. COMPLIANCE WITH ACCESS REQUIREMENTS IS TO BE DEMONSTRATED BY PLOTTING THE PARKING SPACE LOCATIONS AND THE APPROPRIATE AASHTO VEHICLE TURNING TEMPLATES ON THE IMPROVEMENT PLANS FOR ALL STREET CROSS SECTIONS.

6. STREET DESIGNS SHALL ALSO CONFORM TO THE REQUIREMENTS LISTED IN MUNICIPAL CODE SECTION 17.52.36 "PEDESTRIAN FRIENDLY STREETS."
NOTES

1. SEE CITY STD. S-4 FOR SIDEWALK (SW) AND LANDSCAPE (LS) AREA STANDARDS.

2. PLANTER STRIPS ARE REQUIRED BETWEEN THE SIDEWALK AND THE CURB, EXCEPT CURB ADJACENT SIDEWALKS MAY BE USED WHEN APPROVED BY THE CITY ENGINEER TO AVOID SIGNIFICANT ENVIRONMENTAL IMPACTS RELATED TO HILLSIDE STREET GRADING AND/OR THE REMOVAL OF SIGNIFICANT TREES.

3. STREET CROSS SECTIONS MAY BE WIDER THAN INDICATED AS NECESSARY TO CONFORM TO THE SIGHT DISTANCE AND VISIBILITY STANDARDS, PARKING REQUIREMENTS, VEHICLE BACKUP AND TURNAROUND MOVEMENTS, AND FIRE DEPARTMENT TURNING MOVEMENTS. COMPLIANCE WITH ACCESS REQUIREMENTS IS TO BE DEMONSTRATED BY PLOTTING THE PARKING SPACE LOCATION AND THE APPROPRIATE AASHTO VEHICLE TURNING TEMPLATES ON THE IMPROVEMENT PLANS FOR ALL STREET CROSS SECTIONS.

4. STREET DESIGNS SHALL ALSO CONFORM TO THE REQUIREMENTS LISTED IN MUNICIPAL CODE SECTION 17.52.36 PEDESTRIAN FRIENDLY STREETS.

5. HILLSIDE SURFACE IMMEDIATELY BEYOND CURB AND GUTTER, SIDEWALK OR LANDSCAPING TO BE LESS THAN 2% GRADE. GRADE REQUIREMENTS SHALL OCCUR OVER A MINIMUM OF 1' PAST SIDEWALK/LANDSCAPING AND A MINIMUM OF 1.5' PAST CURB AND GUTTER.
NOTES

1. LOCAL RURAL STREETS MAY BE USED FOR RESIDENTIAL PROJECTS WHEN FRONTING LOT SIZES ARE 20,000 SF OR GREATER.

2. GENERALLY CURB AND GUTTER IS REQUIRED TO CONTROL STREET SIDE DRAINAGE, BUT ALTERNATE METHODS MAY BE CONSIDERED ON A CASE BY CASE BASIS AS APPROPRIATE TO ACCOMMODATE AND PROVIDE FOR WATER QUALITY MEASURES (BEST MANAGEMENT PRACTICES FOR STORM WATER POLLUTION PREVENTION) AS REVIEWED AND APPROVED BY THE CITY ENGINEER.

3. STREET DESIGNS SHALL ALSO CONFORM TO THE REQUIREMENTS LISTED IN MUNICIPAL CODE SECTION 17.52.36 PEDESTRIAN FRIENDLY STREETS.
NOTES

1. GENERALLY THE STANDARD CUL-DE-SAC BULB DIMENSIONS SHOWN ARE REQUIRED FOR ALL RESIDENTIAL TURNAROUNDS. HOWEVER, ALTERNATE TURNAROUND DESIGNS WILL BE ALLOWED AS INDICATED IN THE SECTION TITLED "FIRE DEPARTMENT ACCESS" OF THE CITY OF NAPA STREET STANDARD SPECIFICATIONS.
NOTE:
1. WHEN A STANDARD TURNAROUND IS REQUIRED (AND THAT TURNAROUND WILL SERVE FUTURE DEVELOPMENT ACROSS THE STREET ON AN ABUTTING PARCEL) A PARTIAL CUL-DE-SAC DESIGNED IN ACCORDANCE WITH EITHER STANDARD DETAIL S-7C (FIRE ENGINE) OR CITY STD. S-7D (FIRE LADDER TRUCK) WILL BE ALLOWED AS AN INTERIM SOLUTION WHEN APPROVED BY THE FIRE CHIEF.

2. SEE CITY STD. S-7A FOR ADDITIONAL DESIGN PARAMETERS.
1. WHEN A STANDARD TURNAROUND IS REQUIRED (AND THAT TURNAROUND WILL SERVE FUTURE DEVELOPMENT ACROSS THE STREET ON AN ABUTTING PARCEL) A PARTIAL CUL-DE-SAC DESIGNED IN ACCORDANCE WITH EITHER STANDARD DETAIL S-7C (FIRE ENGINE) OR STANDARD DETAIL S-7D (FIRE LADDER TRUCK) WILL BE ALLOWED AS AN INTERIM SOLUTION WHEN APPROVED BY THE FIRE CHIEF.

2. SEE CITY STD. S-7A FOR ADDITIONAL DESIGN PARAMETERS.
NOTES:

1. PLACE TRANSVERSE SCORE LINES AT 4' INTERVALS ON FACE OF CURB, RADIAL TO THE RADIUS POINT.

2. IN ADDITION TO THE REQUIREMENTS SHOWN ON THIS DRAWING, CURB RAMPS SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT CALTRANS STANDARD RSP A88A (SEE CITY STD. S-9).

3. WHERE EXISTING FACILITIES ARE NONCONFORMING OR RIGHT-OF-WAY LIMITATIONS EXIST, RAMPS MAY BE MODIFIED AS APPROVED BY THE CITY ENGINEER.

4. NEW CLASS II AB REQUIRED FOR ALL CONSTRUCTION.

5. ALL CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.
SHOULDER BACKING

1. SHOULDER BACKING
2. ASPHALT CONCRETE (95%)

FLUSH VERTICAL CURB

1. FLUSH VERTICAL CURB
2. #4 REBAR
3. ASPHALT CONCRETE (95%)

NOTES
1. ALL UNSUPPORTED PAVEMENT STRUCTURAL SECTION EDGES SHALL INCLUDE EDGE PROTECTION PER THIS DETAIL.
2. ALL CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.
3. CONCRETE SHALL BE BRUSH FINISHED PARALLEL TO FACE OF CURB.
4. ALL CURBS SHALL BE BACKFILLED BEFORE STREET IS ROCKED AND PAVED.
5. CLASS 2 AGGREGATE BASE, SUBGRADE AND FILL MATERIAL, IF ANY, SHALL HAVE A MINIMUM OF 95% RELATIVE COMPACTION UNDER CURBS.
6. ON STRAIGHT RUN OF CURB, 1/2 INCH EXPANSION JOINTS SHALL BE INSTALLED ON 40 FOOT C.C. AND WEAK PLANE JOINTS INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
7. SUBGRADE SHALL EXTEND UNDER ALL SHOULDER BACKING AND TO ONE FOOT BEHIND FLUSH CURB.
NOTES

1. ALL CONCRETE TO BE 4000 PSI (6 SACK/CY).

2. SEE CITY STD S-4B, CONCRETE CONNECTION DETAIL.
NOTES

ORDINATES, IN DECIMAL PARTS OF A FOOT, ESTABLISH THE DISTANCE OF THE PAVEMENT SURFACE OF THE TRANSVERSE STREET BELOW THE NORMAL STREET GRADE, FROM STA. 0+00 TO 0+25.

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NOTES

1. **ALL TRENCH CUTS SHALL BE CUT TO A NEAT LINE WITH A CONCRETE SAW.**

2. **ALL TRENCH CUTS SHALL BE “T-CUT” ONE FOOT WIDER THAN THE TRENCH EXCAVATION. T-CUT SHALL BE INCLUDE FULL DEPTH AC.**

3. **THE EXISTING ASPHALT SHALL BE REMOVED AND REPLACED BETWEEN THE EDGE OF THE TRENCH AND THE EXISTING CURB AND GUTTER IF LESS THAN THREE FEET OF ASPHALT REMAINS.**

4. **STORM DRAIN PIPE SHALL BE BEDDED AND BACKFILLED TO ONE FOOT OVER THE CROWN OF THE PIPE WITH 3/4” CLEAN CRUSHED ROCK. FOR ADDITIONAL INFORMATION REFER TO CITY STD. D-12, STORM DRAIN TRENCH REGARDING TRENCHING STORM DRAIN FACILITIES. CONTACT NAPA SANITATION DISTRICT FOR INFORMATION REGARDING TRENCHING SEWER FACILITIES.**

5. **ALL WATER LINES AND PG&E JOINT TRENCHES SHALL BE BEDDED AND BACKFILLED TO ONE FOOT OVER THE PIPE WITH SAND. FOR ADDITIONAL INFORMATION REFER TO CITY STD. W-13, WATER TRENCH DETAIL REGARDING TRENCHING WATER FACILITIES.**

6. **IN ALL PAVED AREAS, BOTH PRIVATE AND PUBLIC, TRENCHES SHALL BE BACKFILLED FULL DEPTH WITH CLASS II AGGREGATE BASEROCK COMPACTED TO 95% RELATIVE COMPACTION. RECYCLED AGGREGATE BASEROCK MAY BE USED. THE PROJECT GEOTECHNICAL ENGINEER SHALL TAKE SUFFICIENT TESTS TO ASSURE THAT ALL COMPACTION REQUIREMENTS ARE MET.**

7. **IN UNPAVED AREAS, NATIVE MATERIAL COMPACTED TO 90% MAY BE USED FOR TRENCH BACKFILL.**

8. **NO JETTING OF BACKFILL MATERIAL IS ALLOWED.**

9. **ANY ADJACENT PAVEMENT DAMAGED DURING CONSTRUCTION SHALL BE CUT INTO A NEAT LINE AND REMOVED PRIOR TO PAVING, AS MARKED BY CONSTRUCTION INSPECTOR/ENGINEER.**

10. **ALL TRENCHES IN PAVED AREAS SHALL HAVE TEMPORARY CUTBACK INSTALLED OR BE PLATED AT THE END OF EACH WORKING DAY.**

11. **ALL TRENCHES SHALL BE PAVED WITH HOT MIX ASPHALT WITHIN SEVEN DAYS.**

12. **TRENCH PAVING SHALL BE MINIMUM OF FIVE INCHES OF ASPHALT OR MATCH THE EXISTING PAVEMENT SECTION WHICHEVER IS GREATER.**

13. **A TACK COAT SHALL BE APPLIED TO ALL VERTICAL EDGES USING SS-1 OR RS-1 EMULSIFIED OIL.**

14. **JOINT SHALL BE TACK COATED AND SANDERED WITHIN 3 DAYS OF PAVING.**

15. **WHEN BACKFILLING FOR WATER UTILITIES, REFER TO CITY STANDARD PLAN W-16, WATER TRENCH DETAIL.**
NOTES

1. SURVEYOR OR ENGINEER SETTING THE MONUMENT SHALL INDICATE EXACT POINT BY MAKING A CROSS ON THE CAP. SURVEYOR SHALL STAMP YEAR SET AND THEIR LICENSE TYPE & NUMBER.

2. THE DEPTH OF THE MONUMENT POST SHALL BE LENGTHENED OR SHORTENED AS DICTATED BY THE GROUND CONDITIONS OR AS DIRECTED BY THE CITY ENGINEER. IN SOFT GROUND OR FILL AREAS THE MONUMENT POST SHALL BE LENGTHENED TO BED IT ON A STABLE BASE. IN ROCK IT SHALL BE KEYED OR DOWELED PERMANENTLY TO THE ROCK AS DIRECTED BY THE CITY ENGINEER.

3. WHEN THE MONUMENT IS TO BE INSTALLED IN AN EXISTING STREET WHERE THE CROWN IS NOT AT STANDARD ELEVATION, THE TOP OF THE MONUMENT SHOULD BE SET 8" BELOW THE FUTURE STREET SURFACE OR AS DIRECTED BY THE CITY ENGINEER. IT MAY BE NECESSARY TO USE A RISER PIPE.
NOTES

1. REFER TO CITY STD D-14 FOR STORM DRAIN MANHOLE AND CITY STD W-9 FOR WATER MANHOLE SETTING SPECIFICATIONS.

2. THE FINISH GRADE OF THE COVERS SHALL BE FLUSH WITH THE ADJACENT SURFACING.

3. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL BE 5000 PSI (7 SACKS PER CUBIC YARD & 3/4" AGGREGATE).

4. THE COVER SHALL BE MARKED WITH THE NAME OF THE ITEM IT IS SET OVER.

5. ALL STRUCTURES SHALL BE SET TO GRADE AFTER PAVING.

6. ROUND HOLES SHALL BE SAWCUT.
NOTES

1. CONCRETE MUST BE TACK COATED PRIOR TO AC PLACEMENT.

2. YOU MUST ARRANGE FOR CITY INSPECTION BEFORE PCC IS PLACED, BACKFILL MUST BE COMPACTED BEFORE CITY INSPECTION.

3. YOU MUST FURNISH, INSTALL AND MAINTAIN A STEEL PLATE OVER EACH CONCRETE COLLAR PLACED AROUND EACH FRAME OR BOX UNTIL THE ASPHALT CONCRETE IS PLACED TO FINISH GRADE.

4. ENCASEMENTS MUST BE SET 1/4" BELOW STREET SURFACE.

5. CONCRETE MUST BE SEVEN (7) SACK, 5000PSI, SHAMROCK MIX #9170GG, OR EQUAL.

6. A CIRCULAR HOLE MUST BE CUT AROUND THE APPURtenance USING A METHOD THAT PROVIDES A SMOOTH EDGE, AS APPROVED BY THE ENGINEER.
NOTES

1. INSTALL 18"X18" 0.080 GA ALUMINUM TYPE N REFLECTOR WITH 3M DIAMOND CUBED SHEETING (YELLOW COVERED WITH ELECTRO CUT SHEETING). 3M 1160 GRAFFITI FILM SHALL BE APPLIED BEFORE INSTALLATION.
1. Guard rail to be painted with one prime coat and two white exterior coats and two white exterior coats. Except creosoted surfaces.

2. Install 18"x18" aluminum type N-4 reflector Hawkins & Hawkins catalogue no. HW-319 or equal.
**Standard Metal Beam Guard Rail**

- **Material:** State Standard 8"x8"x5'-4" S4S D.F. Block
- **Attachment:** Toenail with 1-16D Galvanized Nail on each side of the block
- **Dimensions:**
  - Lap Rail in direction of traffic: 2'-1" ± 1'-9" 6" 7" 8" 8"x8"x1'-2" S4S D.F. Block
  - Cut Steel Washer
  - 3/8" Carriage Bolt with Hex Nut

- **Support:**
  - Standard 8"x8"x5'-4" Rough D.F. Post with State Spec. Pressure Preservative Treatment or 8"x8"x5'-4" S4S Redwood Post

- **Installation:**
  - Standard 12 Gage Terminal Section at both ends

- **Finish Grade:**
  - Lap Rail in direction of traffic

- **Location:**
  - Existing Curb and Gutter
  - Existing Road Surface

**Drawn By:** LFM  
**Date:** 06/2018  
**Scale:** None  
**Checked By:** JGF  
**Approved By:** JRL  
**Drawing No:** S-17
STREET NAME SIGN INSTALLATION
PUBLIC STREETS

NOTES
STREET NAME SIGNS ON NW AND SE CORNERS AT ALL 4-WAY INTERSECTIONS

SEE CITY STD. S-19 FOR STREET NAME SIGNS

SEE CITY STD. S-19 FOR SIGN MOUNT, SIZE & MATERIAL

SIGN POST TO BE 2' STANDARD GALVANIZED PIPE

6" MIN. ALL SIGNS

2' GRANULAR MATERIAL COMPACTED TO 95%

2' FOR DIRT OR 1.5' FOR NON-DIRT SURFACE (P.C.C.)

WELD 3/8" OF REBAR 6" LONG

BASE OF SIGN TO BE POURED WITH 6 SACK PCC

7" MIN. ALL SIGNS

SIDEWALK

2" FOR DIRT OR 1.5" FOR NON-DIRT SURFACE (P.C.C.)

14" DIA. MIN.

1'

2" GRANULAR MATERIAL COMPACTED TO 95%

WELD 3/8" OF REBAR 6" LONG

BASE OF SIGN TO BE POURED WITH 6 SACK PCC

2" FOR DIRT OR 1.5" FOR NON-DIRT SURFACE (P.C.C.)

7" MIN. ALL SIGNS

SIDEWALK

2" GRANULAR MATERIAL COMPACTED TO 95%

WELD 3/8" OF REBAR 6" LONG

BASE OF SIGN TO BE POURED WITH 6 SACK PCC

2" FOR DIRT OR 1.5" FOR NON-DIRT SURFACE (P.C.C.)

7" MIN. ALL SIGNS

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BASE OF SIGN TO BE POURED WITH 6 SACK PCC

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7" MIN. ALL SIGNS

SIDEWALK

2" GRANULAR MATERIAL COMPACTED TO 95%

WELD 3/8" OF REBAR 6" LONG

BASE OF SIGN TO BE POURED WITH 6 SACK PCC

2" FOR DIRT OR 1.5" FOR NON-DIRT SURFACE (P.C.C.)

7" MIN. ALL SIGNS

SIDEWALK
NOTES

PRIVATE STREET NAME SIGNS AND POLES SHALL BE INSTALLED ON PRIVATE PROPERTY ONLY, OUT OF THE CITY RIGHT OF WAY. SIGNS FOR THE PUBLIC STREET SHALL NOT BE MOUNTED ON THE SAME POLE AS A PRIVATE STREET NAME SIGN.
STANDARD STREET NAME SIGN

NOTES:
• STREET NAMES SHALL BE 4" SERIES C, UPPER CASE LETTERING.
• STREET SUFFIXES SHALL BE 2.5", SERIES C, UPPER CASE LETTERING.
• NUMBER AND ARROW SHALL BE 2.25" SERIES C LETTERING.
• BOTH PUBLIC AND PRIVATE STREET SIGNS SHALL BE TWO-SIDED.
• PUBLIC AND PRIVATE STREET NAME SIGNS SHALL NOT BE ON THE SAME POLE.

PUBLIC STREET
• SIGN SHALL HAVE BLACK LETTERS, NUMBERS, AND ARROW ON 3M DIAMOND GRADE WHITE REFLECTIVE BACKING.

PRIVATE STREET
• SIGN SHALL HAVE WHITE LETTERS, NUMBERS, AND ARROW ON A BLUE REFLECTIVE BACKGROUND.
• WITH STREET NAME SIGNS OF DIFFERENT SIZES, THE LARGER OF THE TWO SIGNS SHALL BE PLACED ON THE BOTTOM.

USE HALL SIGNS, INC. #922F SUPR-LOK CAP, (OR APPROVED EQUIVALENT) TO FIT 2" I.D. GALVANIZED PIPE.

ADDRESS NUMBERS 5.5"
STREET NAMES 1.125"
STREET SUFFIXES 2.25"

BEGINNING ADDRESS NUMBER, ROUND DOWN TO NEAREST HUNDRED.
ENDING ADDRESS NUMBER, ROUND UP TO END.

STREET NAMES SHALL BE A MINIMUM OF 1.5" FROM EDGE OF SIGN ON BOTH SIDES. IF MINIMUM IS NOT MET, LARGER SIGN WILL BE REQUIRED.

SIGN SHALL BE MINIMUM 0.125" THICK

ALL RADII TO BE 0.75"

11.5"

24" MINIMUM (VARIABLE)

USE HALL SIGNS, INC #990F SUPR-LOK CROSS™ (OR APPROVED EQUIVALENT) TO MOUNT IN BETWEEN SIGNS.

2"

6"
NOTES

1. REFER TO THE CITY OF NAPA MUNICIPAL CODE, "CHAPTER 17.54 PARKING" FOR ADDITIONAL PARKING DESIGN STANDARDS.

2. AT THE ENTRANCE TO ANY PARKING LOT OR PARKING STRUCTURE WHERE COMPACT PARKING SPACES ARE ENFORCED THERE SHALL BE POSTED AND IN PLAIN VIEW THE CITY STANDARD "COMPACT SPACES ENFORCED" SIGN, DRAWING NO. PT-85125.

3. ALL "COMPACT PARKING" SPACES NOT MARKED ON THE PAVEMENT WITH THE ABOVE SHOWN LIMIT LINE AND "KEEP CLEAR" PAVEMENT MESSAGE ARE NON-ENFORCEABLE.

4. THE "COMPACT PARKING ONLY" PAVEMENT STENCIL WITHOUT THE LIMIT LINE IS INFORMATION ONLY AS RELATED TO STALL SIZE.

5. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE WHITE.
1. Height limits are measured from the top of curb nearest to the obstruction or (on streets with no curbs).

2. 20 ft red curb for driveway accessibility and visibility does not include those driveways serving single family homes.

3. For streets with traffic calming curb bulb-outs, the visibility triangle is measured along the bulb-out face of curb.

Within this area, all shrubs, bushes, solid fences, and other improvements shall be restricted to a 2' max height, fences that are 50% open and retaining walls shall not exceed 3' max height and trees maintained to a clearance of 7.5' above ground (M.C. Sec. 10.32.020)
NOTES

1. USE INTER-LOCKING STENCILS FOR PROPER SPACING.
2. ARIAL FONT OR SIMILAR.
3. USE QUALITY GRADE ENAMEL PAINTS.
NOTES

1. PORTLAND CEMENT CONCRETE SHALL BE 4000 PSI (6 SACKS PER CUBIC YARD), 3/4" AGGREGATE.

2. THE PATTERN TO BE IMPRINTED SHALL MATCH "BOMANITE'S" BOMACRON RUNNING BOND BELGIAN BLOCK PATTERN.

3. THE COLOR HARDENER SHALL BE "BOMANITE'S" DESERT TAN OR QC CONSTRUCTION PRODUCTS DURANGO TAN OR APPROVED EQUIVALENT.

4. BOMANITE, MADERA, CA (209) 673-2411 OR QC CONSTRUCTION PRODUCTS, MADERA, CA (800) 452-8213.

5. THE COLOR HARDENER SHALL BE APPLIED EVENLY TO THE SURFACE OF FRESH CONCRETE BY DRY-SHAKE METHOD USING A MINIMUM OF 60 POUNDS PER 100 SQUARE FEET. IT SHALL BE APPLIED IN TWO MORE SHAKE, FLOATED AFTER EACH SHAKE AND TROWLED ONLY AFTER THE FINAL FLOATING.


7. CONTROL JOINTS SHALL BE PER CITY STD. S-4.
NOTES

1. MINIMUM $\Delta=60^\circ$, MAXIMUM $\Delta=100^\circ$.
2. MINIMUM CURB LONGITUDINAL SLOPE=0.5%
3. CROWN LINE LIES MIDWAY BETWEEN OUTSIDE AND INSIDE RETURNS, ALONG THE LINE RADIAL TO INSIDE RETURN.
4. CROWN LINE ELEVATION TO BE SHOWN ON THE PLANS AT THE QUARTER POINTS.
5. DESIGN SHALL CONFORM TO THESE REQUIREMENTS EXCEPT AS OTHERWISE APPROVED BY THE CITY ENGINEER.
6. THE OUTSIDE MINIMUM RADIUS SHALL BE 40' IF PARKING IS PROVIDED AND A MINIMUM 32' IF NO PARKING IS PROVIDED.
NOTES

Generally turnarounds shall be designed in accordance with standard details S7A & S7B. However, for residential development, when through access is not available, and a standard turnaround is not feasible, alternate turnarounds will be allowed (in accordance with standard details S30A & S30B) as follows:

1. For private streets (based on evidence supplied by the developer in the form of a design exception that is approved by the fire chief and city engineer) when:
   1.A. The standard cul-de-sac bulb will cause significant environmental impacts such as excessive hillside grading, rock outcroppings, and/or removal of significant trees.
   1.B. The standard cul-de-sac bulb will prevent site layouts that achieve minimum development densities.

2. For a driveway serving a flag lot.

3. For a street that abuts 4 or less lots.

4. The layout of the hammerhead turnaround and surrounding lots and connecting driveways shall be “self policing” (i.e. in addition to signage and painted curbing the layout configuration shall include design elements that discourage the parking of vehicles or placement of obstructions within the fire lane turnaround area), as reviewed and approved by the fire chief and city engineer.
NOTES:

GENERALLY TURNAROUNDS SHALL BE DESIGNED IN ACCORDANCE WITH STANDARD DETAILS S7A & S7B. HOWEVER, FOR RESIDENTIAL DEVELOPMENT, WHEN THROUGH ACCESS IS NOT AVAILABLE, AND A STANDARD TURNAROUND IS NOT FEASIBLE, ALTERNATE TURNAROUNDS WILL BE ALLOWED AS FOLLOWS:

1. FOR PRIVATE STREETS (BASED ON EVIDENCE SUPPLIED BY THE DEVELOPER IN THE FORM OF A DESIGN EXCEPTION THAT IS APPROVED BY THE FIRE CHIEF AND CITY ENGINEER) WHEN:
   1.A. THE STANDARD CUL-DE-SAC BULB WILL CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS SUCH AS EXCESSIVE HILLSIDE GRADING, ROCK OUTCROPPINGS, AND/OR REMOVAL OF SIGNIFICANT TREES.
   1.B. THE STANDARD CUL-DE-SAC BULB WILL PREVENT SITE LAYOUTS THAT ACHIEVE MINIMUM DEVELOPMENT DENSITIES.

2. FOR A DRIVEWAY SERVING A FLAG LOT.

3. FOR A STREET THAT ABUTS 4 OR LESS LOTS.

4. THE LAYOUT OF THE HAMMERHEAD TURNAROUND AND SURROUNDING LOTS AND CONNECTING DRIVEWAYS SHALL BE "SELF POLICING" (I.E. IN ADDITION TO SIGNAGE AND PAINTED CURBING THE LAYOUT CONFIGURATION SHALL INCLUDE DESIGN ELEMENTS THAT DISCOURAGE THE PARKING OF VEHICLES OR PLACEMENT OF OBSTRUCTIONS WITHIN THE FIRE LANE TURNAROUND AREA), AS REVIEWED AND APPROVED BY THE FIRE CHIEF AND CITY ENGINEER.
**TYPE 1: 6" TOE**

- **GRADE CONDITION**
- **"H"** (WALL HEIGHT)
- **"W"** (FOOTING WIDTH)
- **X BARS**
- **Y BARS**
- **Z BARS**
- **"K"** (KEY DEPTH)

<table>
<thead>
<tr>
<th>GRADE CONDITION</th>
<th>&quot;H&quot; [WALL HEIGHT]</th>
<th>&quot;W&quot; [FOOTING WIDTH]</th>
<th>X BARS</th>
<th>Y BARS</th>
<th>Z BARS</th>
<th>&quot;K&quot; (KEY DEPTH)</th>
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<tr>
<td>SLOPING GRADE UP TO 3'-0&quot;</td>
<td>3'-1&quot; TO 4'-0&quot;</td>
<td>30&quot;</td>
<td>#4 @ 32&quot;</td>
<td>#4 @ 32&quot;</td>
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<td>30&quot;</td>
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<td>#4 @ 32&quot;</td>
<td>16&quot;</td>
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<tr>
<td>LEVEL GRADE AT TOP OF WALL</td>
<td>3'-1&quot; TO 4'-0&quot;</td>
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<td>#4 @ 32&quot;</td>
<td>#4 @ 32&quot;</td>
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**TYPE 2: 6" HEEL**

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<th>&quot;H&quot; [WALL HEIGHT]</th>
<th>&quot;W&quot; [FOOTING WIDTH]</th>
<th>X BARS</th>
<th>Y BARS</th>
<th>Z BARS</th>
<th>&quot;K&quot; (KEY DEPTH)</th>
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<tr>
<td>SLOPING GRADE UP TO 3'-0&quot;</td>
<td>3'-1&quot; TO 4'-0&quot;</td>
<td>24&quot;</td>
<td>#4 @ 32&quot;</td>
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<td>#4 @ 32&quot;</td>
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All notes refer to drawing S-30B

City of Napa Public Works Department

Retaining Walls

**Drawn By:** BRL
**Checked By:** JGF
**Date:** 06/2018
**Approved By:** JRL
**Scale:** None
**Drawing No.:** S-30A
NOTES

1. ALL WORK SHALL CONFORM TO THE ADOPTED CODES AND ZONING REGULATIONS.

2. CONCRETE BLOCK MASONRY SHALL COMPLY WITH THE FOLLOWING:
   A. CONCRETE MASONRY SHALL CONFORM TO ASTM C-90, GRADE-N.
   B. MORTAR: TYPE M OR S.
   C. GROUT: ALL CELLS W/2000 PSI PORTLAND CEMENT GROUT

3. THE ULTIMATE COMpressive STRENGTH REQUIRED FOR FOUNDATION CONCRETE SHALL BE 2500 PSI.

4. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE ASTM A615-40 AND OVERLAP SPICES SHALL BE 40 BAR DIAMETERS MINIMUM. ALL REBAR HOOKS SHALL BE A MINIMUM OF 12 TIMES THE REBAR DIAMETER (12bd) IN LENGTH.

5. PROVIDE RETAINING WALL DRAINAGE SYSTEM AS FOLLOWS:
   A. PROVIDE 1 CF/FT OF CLEAN COARSE GRAVEL WITH 4" DIAMETER PERFORATED PVC DRAINAGE PIPE WITH 1% GRADIENT TO DRAIN - OR OMIT HEAD JOINTS IN FIRST COURSE.

6. OPTIONAL: INSTALLATION OF A MOISTURE BARRIER ON THE FILL SIDE OF THE WALL WILL HELP TO PREVENT MOISTURE FROM PENETRATING THE VISIBLE SIDE OF THE WALL, RESULTING IN DISCOLORATION.

7. THIS RETAINING WALL STANDARD IS NOT DESIGNED TO SUPPORT SURCHARGE LOADS FROM MOTOR VEHICLES OR OTHER STRUCTURES.

REQUIRED INSPECTIONS

1. FOOTING
   A. EXCAVATION TRENCH CLEAN WITH STEEL IN PLACE AND SUPPORTED 3" ABOVE AND AWAY FROM THE SURROUNDING EARTH/DIRT.

2. REBAR/PRE-GROUT AND DRAINAGE SYSTEM
   A. BOND BEAM REBAR AND VERTICAL REBAR IN PLACE - INSPECTION PRIOR TO PLACING GROUT. DRAINAGE SYSTEM COMPLETE.

3. FINAL
   A. AFTER GROUT IS PLACED AND BACKFILL COMPLETED - PRIOR TO ANY DECORATIVE CAP PLACEMENT.

SETBACK FROM TOP OF SLOPE

1. ALL FOOTINGS ADJACENT TO SLOPES TO BE AT LEAST 5' TO DAYLIGHT AS SHOWN BELOW.

DISCLAIMER

ALTERNATE RETAINING WALL DESIGNS MAY BE POSSIBLE WHEN PROVIDED WITH AN ENGINEERED ANALYSIS. USE OF THIS STANDARD DESIGN IS AT THE USER'S RISK AND CARRIES NO IMPLIED OR INFERRED GUARANTEE AGAINST FAILURE OR DEFECTS.

DESIGN PARAMETERS

ACTIVE SOIL PRESSURE (PSF)
LEVEL BACKFILL = 30
SLOPING (2:1 MAX) = 43

PASSIVE SOIL BEARING (PSF) = 150

COEFFICIENT OF FRICTION = 0.25

ALLOWABLE SOIL BEARING PRESSURE (PSF) = 1500
(NO INCREASE TAKEN FOR DEPTH OR WIDENING OF FOOTING)