

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SECTION 100
STREETS AND SIDEWALKS

LAST REVISION : JULY 2013

A. GENERAL REFERENCES FOR STREETS AND SIDEWALKS

1. GENERAL DESIGN WITHIN TOWN RIGHT OF WAY SHALL CONFORM TO THE MOST RECENT VERSION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
2. ROUNDABOUT DESIGN SHALL CONFORM WITH THE UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION GUIDELINES.
3. WORK WITHIN STATE HIGHWAY SYSTEMS IN THE TOWN SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION.
4. GENERAL MATERIALS SHALL BE IN CONFORMANCE WITH STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION SPECIFICATIONS (CALTRANS SPECIFICATIONS). SPECIFICATIONS NOT COVERED IN CALTRANS SPECIFICATIONS SHALL CONFORM TO THE SPECIFICATIONS FOR SOUTHERN CALIFORNIA PUBLIC WORKS (SSPWC).
5. WHERE NOT COVERED IN THESE STANDARD PLANS DETAILS SHALL CONFORM TO THE AMERICAN PUBLIC WORKS ASSOCIATION - STANDARD PLANS FOR PUBLIC WORKS AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS.

B. GENERAL NOTES FOR THE TOWN OF MAMMOTH LAKES ROAD IMPROVEMENT STANDARDS

PURPOSE: THE ROAD IMPROVEMENT STANDARDS AND REQUIREMENTS CONTAINED IN THIS DOCUMENT SHALL BE THE MINIMUM REQUIRED TO PROVIDE ADEQUATE ACCESS TO LAND DEVELOPMENT PROJECTS. THESE STANDARDS SHALL APPLY TO ALL ROAD IMPROVEMENTS REQUIRED UNDER THE PROVISIONS OF THE TOWN OF MAMMOTH LAKES CODE AND ARE ADOPTED BY REFERENCE AS THOUGH CONTAINED WHOLLY THEREIN. ALL TOWN CODE PROVISIONS RELATIVE TO THIS DOCUMENT SHALL APPLY AS THOUGH CONTAINED WHOLLY HEREIN EXCEPT THIS DOCUMENT SHALL TAKE PRECEDENT OVER CONFLICTS.

CONFORMANCE TO GENERAL PLAN: THE DESIGN, LAYOUT, AND OTHER ASPECTS OF ROAD IMPROVEMENTS FOR SUBDIVISIONS SHALL CONFORM TO THESE IMPROVEMENT STANDARDS, GENERAL OR SPECIFIC PLANS, AND IN ALL CASES SHALL PROVIDE FOR THE ADVANTAGEOUS DEVELOPMENT OF THE GENERAL PLANNING AREA WITHIN WHICH THE SUBDIVISION LIES.

ASSESSMENT DISTRICTS: FORMATION OF AN ASSESSMENT DISTRICT TO PROVIDE FOR CONSTRUCTION IMPROVEMENTS AS A FINANCING TOOL SHALL ALSO INCLUDE A MAINTENANCE DISTRICT.

MAINTENANCE DISTRICTS: IF THE ROADS CONSTRUCTED WITHIN A SUBDIVISION ARE TO REMAIN PRIVATE, THEN A MAINTENANCE ENTITY SHALL BE FORMED TO INSURE CONTINUED MAINTENANCE ON THE ROAD SYSTEM. THE ENTITY SHALL BE FORMED IN ACCORDANCE WITH THE STANDARD MAINTENANCE AGREEMENT ON FILE WITH THE TOWN DEPARTMENT OF PUBLIC WORKS. THE SUB DIVIDER MAY BE REQUIRED TO ANNEX TO AN ADJACENT EXISTING MAINTENANCE ENTITY OR HOMEOWNERS ASSOCIATION.

MITIGATION AGREEMENTS: IN SITUATIONS WHERE THE TOWN DETERMINES THAT INCREMENTAL ROAD IMPROVEMENT SHOULD BE DEFERRED OR SUPPLEMENTAL ROAD IMPROVEMENT IS NECESSARY, THE DEVELOPER SHALL BE REQUIRED, AS A CONDITION TO THE PROJECT APPROVAL, TO ENTER INTO A MITIGATION AGREEMENT. SUCH AGREEMENTS SHALL PROVIDE FOR CONTRIBUTIONS OF FUNDS EQUAL TO THE ESTIMATED COST IF THE INCREMENTAL IMPROVEMENTS DEFERRED, SUCH FUNDS TO BE DEPOSITED IN A TRUST ACCOUNT IN THE NAME OF THE ROAD INVOLVED; OR, IN CASES WHERE SUPPLEMENTAL IMPROVEMENTS ARE REQUIRED, THE TOWN MAY ENTER INTO A REIMBURSEMENT AGREEMENT WITH THE DEVELOPER INSTALLING SUCH SUPPLEMENTAL IMPROVEMENTS IN ACCORDANCE WITH THE MUNICIPAL CODE.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



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PUBLIC WORKS
DIRECTOR APPROVAL: 

DATE: May 7, 2014

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OFF SITE ACCESS: THE SUB DIVIDER SHALL PROVIDE ADEQUATE RIGHT-OF-WAY AND SHALL IMPROVE ANY OFF SITE ROADS, REQUIRED FOR THE SUBDIVISION, TO THE REQUIREMENTS SPECIFIED IN THESE STANDARDS. ADEQUATE RIGHT-OF-WAY IS DEFINED AS THE RIGHT-OF-WAY OF SUFFICIENT WIDTH TO CONTAIN THE ENTIRE ROAD PRISM INCLUDING CUT AND FILL SLOPES AND THE MINIMUM DEFINED ELSEWHERE HEREIN.

ROAD DRAINAGE: ROAD DRAINAGE CONCERNS SHALL RECEIVE DESIGN CONSIDERATION AS SHOWN HEREIN AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR. ROAD DRAINAGE SHALL BE ADDRESSED ON ALL IMPROVEMENT PLANS, AND SHALL, AS A MINIMUM, INCLUDE SUCH DRAINAGE PROVISIONS AS ARE INCLUDED ON THE APPLICABLE STANDARD DRAWINGS ATTACHED HERETO.

ACCEPTED FOR MAINTENANCE: WHEN ROADS ARE CONSTRUCTED TO TOWN STANDARDS, THE CURRENT TOWN POLICY IS THAT THEY MAY BE ACCEPTED FOR MAINTENANCE BY THE TOWN.

C. ROAD TYPES

LOCAL: THIS MAY BE A TOWN OR PRIVATELY MAINTAINED ROAD AND SERVES ANY NUMBER OF RESIDENTIAL LOTS.

COLLECTOR: THIS SHALL BE A TOWN MAINTAINED ROAD WHICH FUNCTIONS AS A RESIDENTIAL COLLECTOR OR PROVIDES ACCESS INTO AND/OR THROUGH A COMMERCIAL AREA WITHIN THE MAMMOTH LAKES AREA.

ARTERIAL: THIS SHALL BE A TOWN MAINTAINED ROAD DESIGNATED BY THE TOWN AS AN ARTERIAL ROADWAY IN THE MAMMOTH LAKES AREA.

D. ROAD DESIGN STANDARDS

RIGHT-OF-WAY: THE MINIMUM RIGHT-OF-WAY FOR ROADS TO BE MAINTAINED BY THE TOWN SHALL BE SIXTY FEET UNLESS OTHERWISE SHOWN HEREIN. RIGHT-OF-WAYS MAY BE A COMBINATION OF FEE SIMPLE OR EASEMENT AS SITUATIONS DICTATE AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR. SNOW STORAGE EASEMENTS MAY BE USED OUTSIDE THE ROADWAY PRISM TO MAKE UP THE TOTAL REQUIRED RIGHT-OF-WAY IN AREAS WHERE FEE SIMPLE OR ROAD EASEMENTS CANNOT BE OBTAINED.

STRUCTURAL SECTION DESIGN: ROADS SHALL BE DESIGNED WITH A MINIMUM STRUCTURAL SECTION AS SHOWN OR WITH DATA GIVEN ON THE TYPICAL SECTIONS STANDARD 006. TRAFFIC INDEX VALUES MAY BE INCREASED BASED ON ACTUAL ANALYSIS BUT IN NO CASE SHALL T.I. VALUES BE DECREASED FROM THOSE GIVEN. UNLESS SPECIFICALLY APPROVED BY THE PUBLIC WORKS DIRECTOR.

DRAINAGE: ROADWAY DRAINAGE SHALL BE DESIGNED WITH CONSIDERATIONS FOR THE AMOUNT OF RUNOFF, EROSION PROTECTION, AND MAINTENANCE FACILITIES.

E. GEOMETRICS AND PROFILES

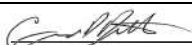
GRADES AND CROSS SLOPES:

- a. MINIMUM GRADE ON NEW STREETS SHALL BE 0.50 PERCENT.
- b. MINIMUM GRADE OF GUTTER SECTIONS CONSTRUCTED ON EXISTING STREET SHALL BE 0.50 PERCENT.
- c. CROSS SLOPE TO CROWN ON NEW STREETS SHALL BE 2.0 PERCENT. (INTERSECTIONS AND SUPER-ELEVATIONS EXCEPTED).
- d. MAXIMUM GRADE ON NEW STREETS SHALL BE 15 PERCENT. HOWEVER, ALL SLOPES IN EXCESS OF 10 PERCENT REQUIRE THE APPROVAL OF THE PUBLIC WORKS DIRECTOR AND POSSIBLY A SNOW/ICE MELT SYSTEM.
- e. THE GRADE OF THE PAVEMENT SURFACE ACROSS AN INTERSECTION SHALL NOT BE MORE THAN +/- 2 PERCENT.
- f. THE GRADIENT OF ANY STREET ENTERING AN INTERSECTION SHALL NOT BE MORE THAT 2 PERCENT WITHIN DISTANCE OF 30 FEET FROM THE NEAR CURB LINE AND/OR EDGE OF SHOULDER OF THE MAJOR CROSSING STREET.

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HORIZONTAL CURVES: CHANGES IN DIRECTION OF THE STREETS SHALL BE MADE WITH HORIZONTAL CIRCULAR CURVES, WITH THE EDGES OF PAVEMENT AND CURB LINES PARALLEL AND EQUIDISTANT FROM THE CENTERLINE OF THE RIGHT-OF-WAY. THE RADIUS OF CURVATURE IN THE CENTERLINE IF THE STREET SHALL CONFORM TO TOWN MINIMUM STANDARDS FOR DESIGN SPEED.

CUL-DE-SACS: THE MINIMUM RADIUS FOR RIGHT-OF-WAY LINES IN CUL-DE-SACS SHALL BE EQUAL TO THE RIGHT-OF-WAY WIDTH OR 45 FEET, WHICHEVER IS GREATER, AND SHALL HAVE A MINIMUM RADIUS OF 35 FEET TO THE EDGE OF PAVEMENT AND/OR A RADIUS OF 37.5 FEET TO THE BACK OF CURB UNLESS OTHERWISE SPECIFIED BY THE PUBLIC WORKS DIRECTOR.

STREET GRADING: EARTH SLOPES IN CUTS OR EMBANKMENT SECTIONS SHALL NOT BE STEEPER THAN THREE (3) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL UNLESS STEEPER SLOPES HAVE BEEN RECOMMENDED BY A LICENSED CIVIL ENGINEER IN A REPORT WHICH SHALL BE FILED WITH AND APPROVED BY THE PUBLIC WORKS DIRECTOR.

STREET INTERSECTIONS:

- a. ALL STREETS SHALL INTERSECT AS NEARLY AS POSSIBLE AS RIGHT ANGLES.
- b. STREETS ENTERING ON OPPOSITE SIDES OF ANY GIVEN STREET SHALL HAVE THEIR CENTERLINES DIRECTLY OPPOSITE OR SHALL BE OFFSET BY AT LEAST 150 FEET.

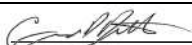
F. OTHER REQUIREMENTS

1. THE TOWN MAY REQUIRE ADDITIONAL RIGHT-OF-WAYS TO ACCOMMODATE TRAFFIC, STREET LIGHTS, SIGNALS, PARKING OR BUS STOPS. THE TOWN OF MAMMOTH LAKES TRANSPORTATION COMMISSION OR THE PLANNING COMMISSION MAY REQUIRE ADDITIONAL RIGHT-OF-WAYS FOR NON-VEHICULAR TRAFFIC, I.E., BIKEWAY, EQUESTRIAN PATH, BUS STOPS, IF THE IMPROVEMENTS ARE SHOWN ON AN ADOPTED PLAN.
2. SIDEWALKS SHALL BE A MINIMUM 6 FEET CLEAR OF ANY OBSTRUCTION. WHERE SIDEWALKS ARE ADJACENT TO A WALL OR BUILDING THEY SHALL BE WIDENED BY AT LEAST 1 FOOT.
3. SIDEWALKS ON MAIN STREET SHALL BE A MINIMUM OF 10 FEET WIDE WITH A MINIMUM OF 6 FEET CLEAR OF OBSTRUCTIONS.
4. SIDEWALKS IN THE NORTH VILLAGE MAIN PEDESTRIAN CORRIDOR AS SHOWN ON THE NORTH VILLAGE SPECIFIC PLAN SHALL BE A MINIMUM OF 8 FEET WIDE AN CLEAR OF OBSTRUCTIONS.

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**GENERAL REFERENCES FOR STREETS
AND SIDEWALKS**

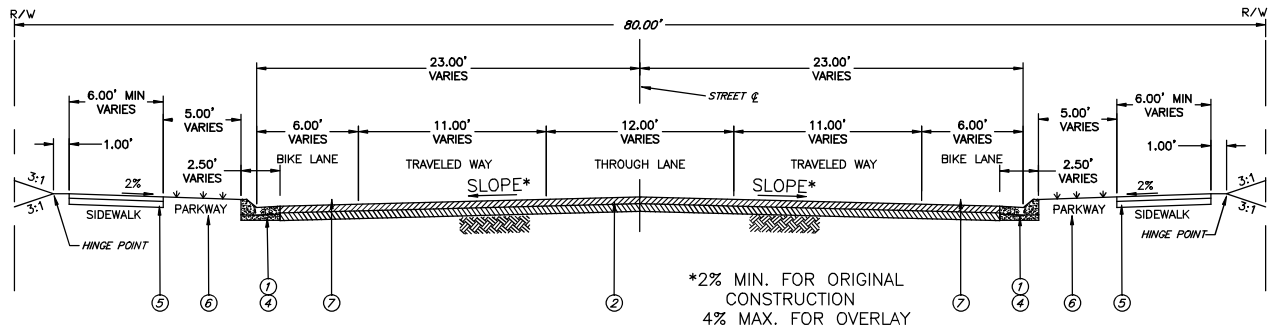
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DIRECTOR APPROVAL: 

DATE: **May 7, 2014**

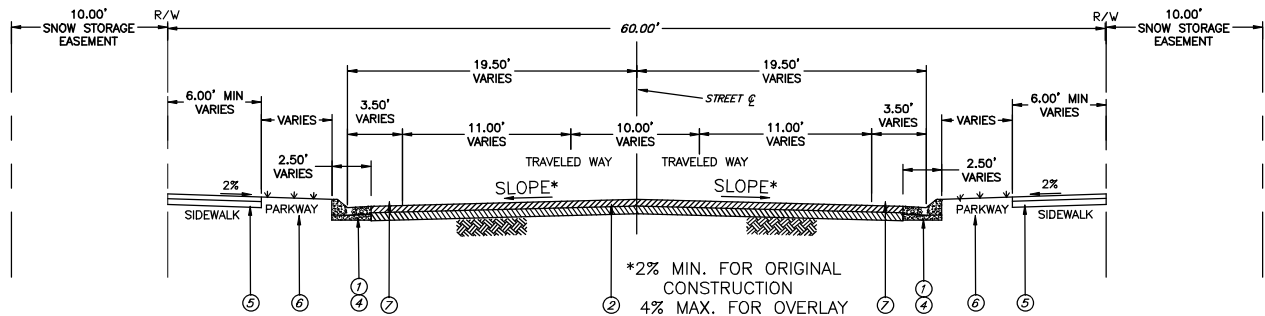
STANDARD PLAN

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TYPICAL SECTION
80 FOOT RIGHT OF WAY, TWO LANES WITH CENTER TURN LANE



TYPICAL 2 LANE SECTION

CONSTRUCTION NOTES FOR STREET CROSS SECTIONS

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. STRUCTURAL SECTION PER TOWN STANDARD 006.
3. STRUCTURAL SECTION TO BE DESIGNED USING TRAFFIC INDEX (TI) AND SUB GRADE SOIL "R" VALUES.
4. CURB AND GUTTER PER TOWN STANDARD 102 AND OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR. WHERE ROAD EDGE FACILITIES CONTAIN RUNOFF, THE FACILITIES MUST BE DESIGNED SUCH THAT THE DEPTH OF FLOW ALLOWS A MINIMUM OF 8 FEET IN ONE LANE FOR EACH DIRECTION AS DEFINED BY AN APPROVED DRAINAGE STUDY.
5. SIDEWALK PER TOWN STANDARD 107 AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
6. WIDTH OF PARKWAY AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
7. WIDTH OF BIKE LANE 5' MIN AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.

GENERAL NOTES FOR STREET CROSS SECTIONS

- A. NORMAL STANDARDS SHOWN ARE SUBJECT TO CHANGE IF CONDITIONS WARRANT AS DIRECTED OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR.

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STREET CROSS SECTIONS

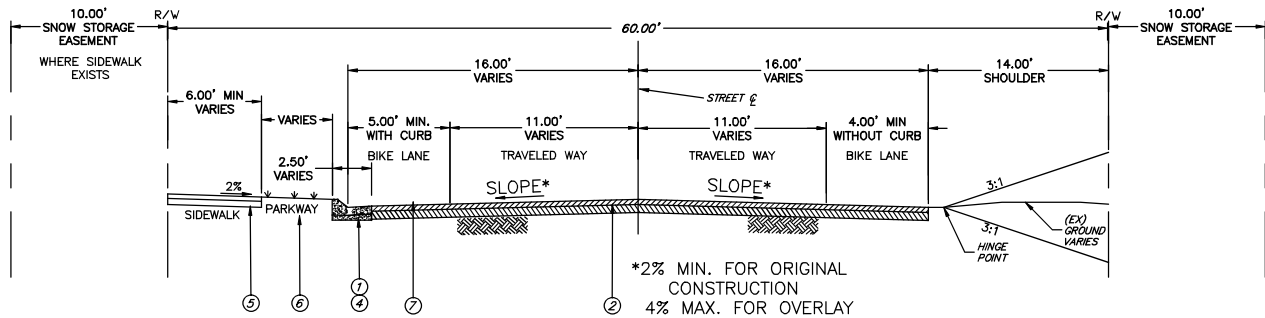
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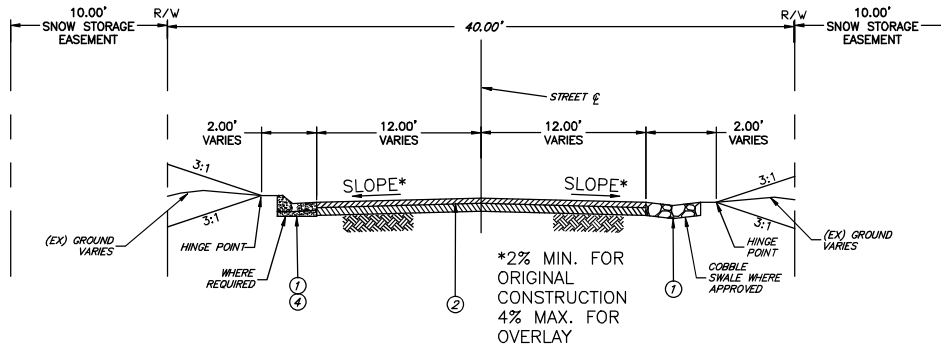
STANDARD PLAN

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TYPICAL SECTION
32' COLLECTOR STREET



TYPICAL SECTION
24' LOCAL STREET

CONSTRUCTION NOTES FOR COLLECTOR AND LOCAL STREET CROSS SECTIONS

1. COBBLE SWALE SHALL BE PER TOWN STANDARD PLAN 304, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. STRUCTURAL SECTION PER TOWN STANDARD 006.
3. STRUCTURAL SECTION TO BE DESIGNED USING TRAFFIC INDEX (TI) AND SUB GRADE SOIL "R" VALUES.
4. CURB AND GUTTER PER TOWN STANDARD 102 AND/OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR (COBBLE SWALE MAY BE USED IN LIEU OF CURB AND GUTTER WHERE NO SIDEWALKS ARE REQUIRED AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR). WHERE ROAD EDGE FACILITIES CONTAIN RUNOFF, THE FACILITIES MUST BE DESIGNED SUCH THAT THE DEPTH OF FLOW ALLOWS A MINIMUM OF 8 FEET IN ONE LANE FOR EACH DIRECTION AS DEFINED BY AN APPROVED DRAINAGE STUDY.
5. SIDEWALK PER TOWN STANDARD 107 AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
6. WIDTH OF PARKWAY AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
7. WIDTH OF BIKE LANE 5' MIN AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.

GENERAL NOTES FOR STREET CROSS SECTIONS

- A. NORMAL STANDARDS SHOWN ARE SUBJECT TO CHANGE IF CONDITIONS WARRANT AS DIRECTED BY OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR.

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STREET CROSS SECTIONS

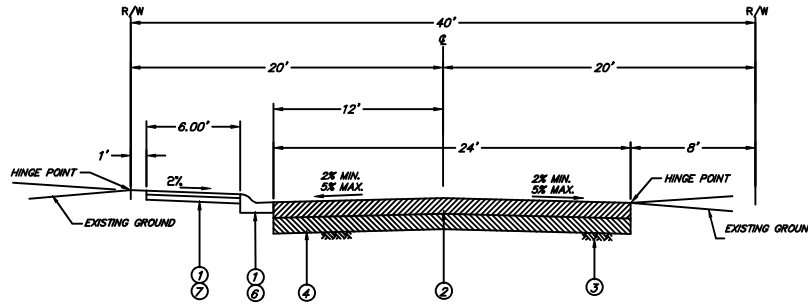
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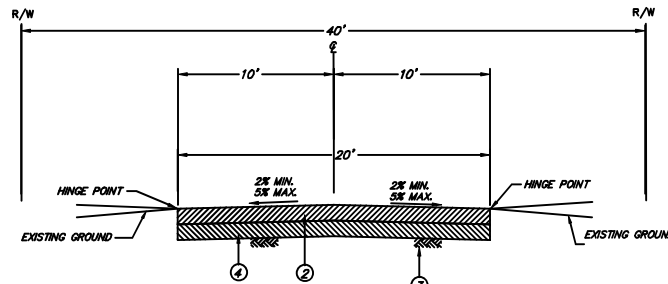
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② TYPICAL SECTION
24' PRIVATE STREET



② TYPICAL SECTION
20' WIDE PRIVATE / DRIVEWAY STREET

CONSTRUCTION NOTES FOR STREET CROSS SECTIONS

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. AC PAVEMENT SHALL BE PER TOWN STANDARD PLAN 006, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
3. SUBGRADE SCARIFIED FOR 12" AND COMPACTED TO 95% FOR THE UPPER 12".
4. BASE MATERIAL SHALL BE CLASS 2 PER THE CSS AND SHALL BE INSTALLED PER PLAN AND COMPACTED TO 95%.
5. STRUCTURAL SECTION TO BE DESIGNED USING TRAFFIC INDEX (TI) AND SUBGRADE SOIL "R" VALUES.
6. CURB AND GUTTER PER TOWN STANDARD 102 AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
7. SIDEWALK PER TOWN STANDARD 108 AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
8. FOR PRIVATE STREET SERVING 10 OR FEWER UNITS.
9. FOR 2 OR FEWER LOTS.
10. MLFPD REQUIRES A MINIMUM OF 24' OF ASPHALT ON STREETS SERVING MORE THAN TWO RESIDENTS.

GENERAL NOTES FOR STREET CROSS SECTIONS

- A. NORMAL STANDARDS SHOWN ARE SUBJECT TO CHANGE IF CONDITIONS WARRANT AS DIRECTED BY OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR.

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STREET CROSS SECTIONS

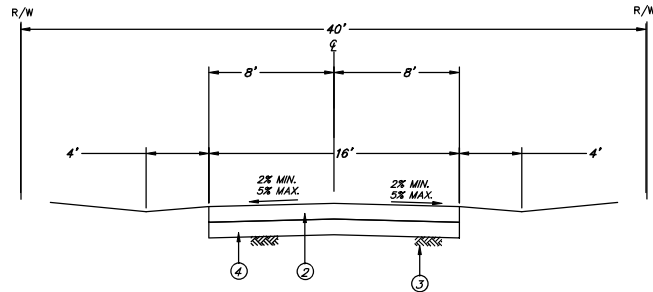
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① TYPICAL SECTION
16' PRIVATE / DRIVEWAY STREET

○ CONSTRUCTION NOTES FOR STREET CROSS SECTIONS

1. PRIVATE STREET SERVING 2 OR FEWER UNITS. MAX LENGTH IS 150 FEET.
2. AC PAVEMENT SHALL BE PER TOWN STANDARD PLAN 006, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
3. SUBGRADE SCARIFIED FOR 12" AND COMPACTED TO 95% FOR THE UPPER 12".
4. BASE MATERIAL SHALL BE CLASS 2 PER THE CSS AND SHALL BE INSTALLED PER PLAN AND COMPACTED TO 95%.
5. STRUCTURAL SECTION TO BE DESIGNED USING TRAFFIC INDEX (TI) AND SUBGRADE SOIL "R" VALUES.
6. MAXIMUM LENGTH OF PRIVATE / DRIVEWAY STREET IS 150' PER MLFD.

GENERAL NOTES FOR STREET CROSS SECTIONS

- A. NORMAL STANDARDS SHOWN ARE SUBJECT TO CHANGE IF CONDITIONS WARRANT AS DIRECTED BY OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR.

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STREET CROSS SECTIONS

PUBLIC WORKS
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TOWN RIGHT OF WAY AND STREET SUMMARY TABLE

Street Type	R/W	AD/SS	SS	CL to ep/	Travel Lane	Ctr Lane	Shoulder bike lane	Design Speed	Min. Horiz. R.	Max R. ADT	Parking Lane	C & G	Sidewalk	Landscape Median/Parkway
Private Street serving 2 lots	30			8		No		0	15		no	No	No	No
Private Street serving 10 lots or fewer	40			10		No		0	20		no	No	No	No
Sherwin Street	40	10	10	10	10	No		0	20		no	No	No	No
Local Street Zone RR	40	10		12	11	No		1	25			No	No	No
Local Street w/o curb	60			12	11	No		1	25	100-499		No	No	No
Local Street w/ curb No Parking	60			16	11	No		5	25	100-499		Yes	either	No
Local Street w curb and parking one side	60			24	11	No		5	25	100-499	8	Yes	either	No
Collector w/ or w/o curb - no parking	60			16	11	No		5	35	500-2000	8	Yes	either	No
Collector w/ or w/o curb - with parking one side	60			24	11	No		5	35	500-2000	8	Yes	either	No
Collector with parking both sides	60	10		24	11	No		5	30	500-2000	8	Yes	either	No
Arterial - General	80			24	11	No		5	35	2001 & up	8	Yes	either	No
OMR - south of business district	80			16	11	No		5	40		no	No	one	No
OMR - Business District	60			19.5	11	No	3.5	5	25		no	yes	6	3.5
Minaret Road south of NV	80			16	11	No		5	35		no	No	both	8 to 10
Canyon Blvd.	60			17	11	No	6	5	25		no	Yes	one	No
Lake Mary Road - west of Canyon	200			16	11	No	5	5	35		No	No	path	5 to 12 feet
Meridian - Sierra Park Rd to Azimuth	80			28	11	No	6	6	35		no	yes	both	No
Meridian - Azimuth to Minaret	80			23	11	No	12	6	35		No	yes	both	0 to 8 feet
Meriden - Minaret Rd to Majestic Pines	80			31	11	No	12	6	30		8	yes	both	No
Local street NV - no parking	60			16	11	No	5	5	25	100-499	No	yes	one/both	No
Minaret Rd. NV South of Main - No parking	80			22	11	No	12	5	35		no	yes	both	0 to 6 feet
Minaret Rd. NV South of Main - w/ parking	80			30	11	No	12	5	30		8	yes	both	0 to 6 feet
Minaret Rd. NV North of Main w/ parking - Hwy 203	74		10	31	12	No	12	5	30		8	yes	both	No
Lake Mary Road - Main to Canyon	140			27	11	No	5	5	25		No	yes	both	0 to 12 feet

Notes:

1. Additional right of way is required for turn lanes, intersection radius/roundabouts, bus stops, trails, sidewalks, and snow storage. Easement may be used for sidewalks, utilities, landscape and snow storage.
2. MLFPD approval required for private street access and turn around areas.
3. Abbreviations: R/W=Right of Way; AD/SS=Additional dedication/Snow Storage; SS=Snow Storage; CL to ep/ff=Centerline to edge of pavement/flow line; TL=Travel Lane; Ctr Lane=Center Lane; C&G=Curb and Gutter;

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STREET CROSS SECTIONS

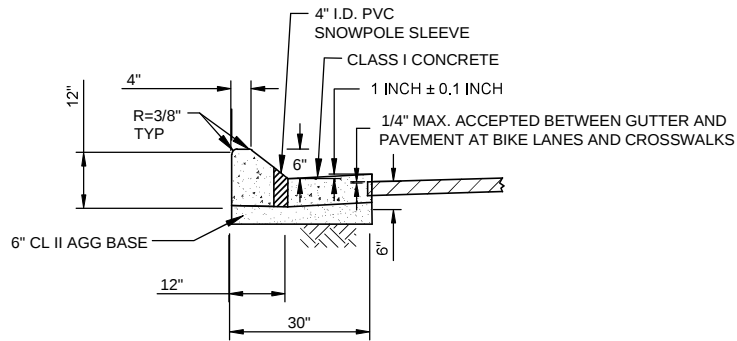
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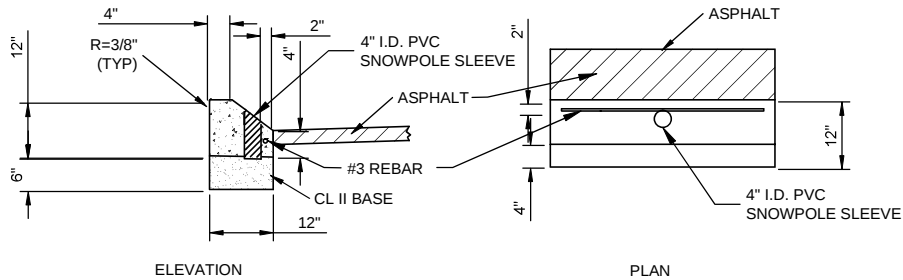
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TYPE I CURB & GUTTER DETAILS

NO SCALE



TYPE II CURB DETAILS

NO SCALE

GENERAL NOTES FOR CONCRETE CURB AND GUTTER

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. PLACE CONTROL JOINTS IN ACCORDANCE WITH ACI 224.3R-95, ACI 325.12R-02 AND SHEET 4 OF 4 OF THIS STANDARD PLAN.
3. SUBGRADE SHALL BE SCARIFIED A MIN. OF 12 INCHES, MOISTURE CONDITIONED, AND COMPACTED TO A MIN. OF 95% RELATIVE COMPACTION.
4. TOP AND FACE OF CURB SHALL BE TROWLED SMOOTH AND FINISHED WITH A FINE BRUSH.
5. GUTTERS SHALL NOT VARY MORE THAN 1/8 INCH FROM TRUE GRADE.
6. CONFORM TO AMERICAN PUBLIC WORKS ASSOCIATION (SOUTHERN CALIFORNIA CHAPTER) - STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION CURRENT VERSION.
7. SNOW POLES SLEEVES SHALL BE PLACED EVERY 50 FEET AND AT THE BEGINNING AND END OF CURBS, ANGLE POINTS, CURBS RAMPS AND ANY OTHER LOCATION IDENTIFIED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE.

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CONCRETE CURB AND GUTTER

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

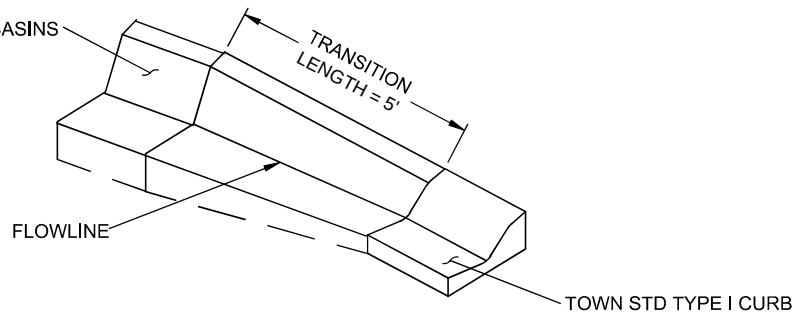
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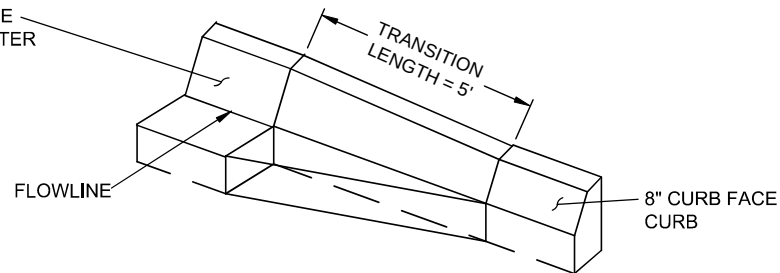
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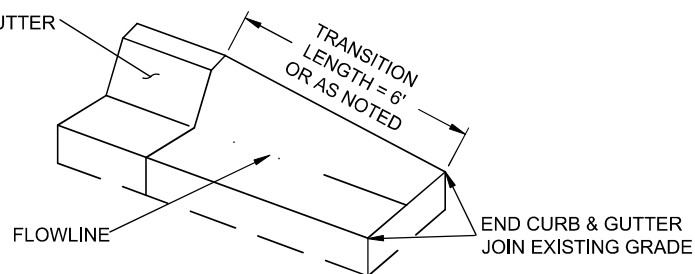
VERTICAL CURB AT SIDE OPENING BASINS



8" CURB FACE
CURB & GUTTER



CURB & GUTTER



CURB TRANSITION DETAILS

NO SCALE

NOTE: TRANSITION MAY BE REDUCED TO 3:1 AS APPROVED BY THE PUBLIC WORKS DIRECTOR

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CONCRETE CURB AND GUTTER

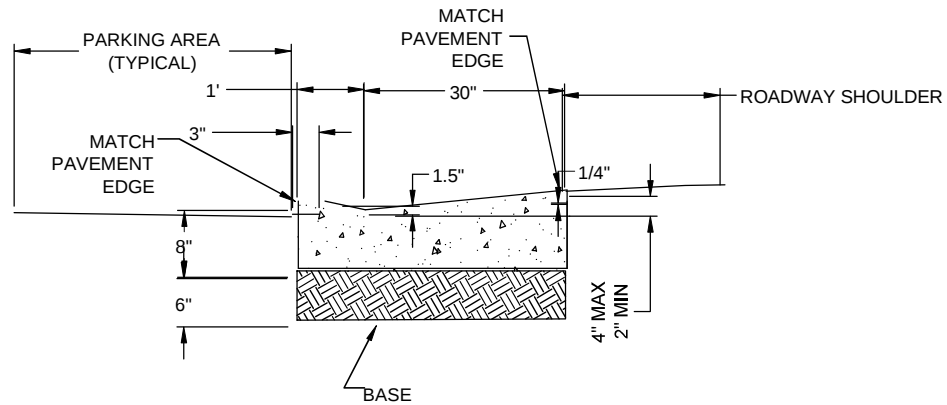
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DEPRESSED CURB AT DRIVEWAYS WITHOUT SIDEWALKS

NO SCALE

GENERAL NOTES FOR CONCRETE CURB AND GUTTER

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. PLACE CONTROL JOINTS IN ACCORDANCE WITH ACI 224.3R-95
3. EXPANSION JOINT REQUIRED AT ALL STRUCTURES, END OF CURVES, (EC) AND BEGINNING OF CURVES, (BC).
4. SUBGRADE SHALL BE SCARIFIED A MIN. OF 12 INCHES, MOISTURE CONDITIONED, AND COMPACTED TO A MIN. OF 95% RELATIVE COMPACTION.
5. TOP AND FACE OF CURB SHALL BE TROWLED SMOOTH AND FINISHED WITH A FINE BRUSH.
6. GUTTERS SHALL NOT VARY MORE THAN 1/8 INCH FROM TRUE GRADE.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



CONCRETE CURB AND GUTTER

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

STANDARD PLAN

102-2

SHEET 3 OF 4

GENERAL NOTES FOR CONCRETE SCORING AND EXPANSION REQUIREMENTS

1. CONCRETE SCORING AND EXPANSION REQUIREMENTS SHALL BE IN ACCORDANCE WITH ACI 224.3R-95.
2. EXPANSION JOINTS ARE ONLY NECESSARY AT RELATIVELY FIXED STRUCTURES SUCH AS A LIGHT POLE FOOTING AND DROP INLET BOXES.
3. CONTRACTION JOINTS SHALL BE SPACED AT ____' O.C.
4. SCORE LINES SHALL BE AT 5 FOOT INTERVALS AND 1/4" DEEP EXTENDING THROUGH SIDEWALK ONLY.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



**CONCRETE SCORING AND
EXPANSION REQUIREMENTS**

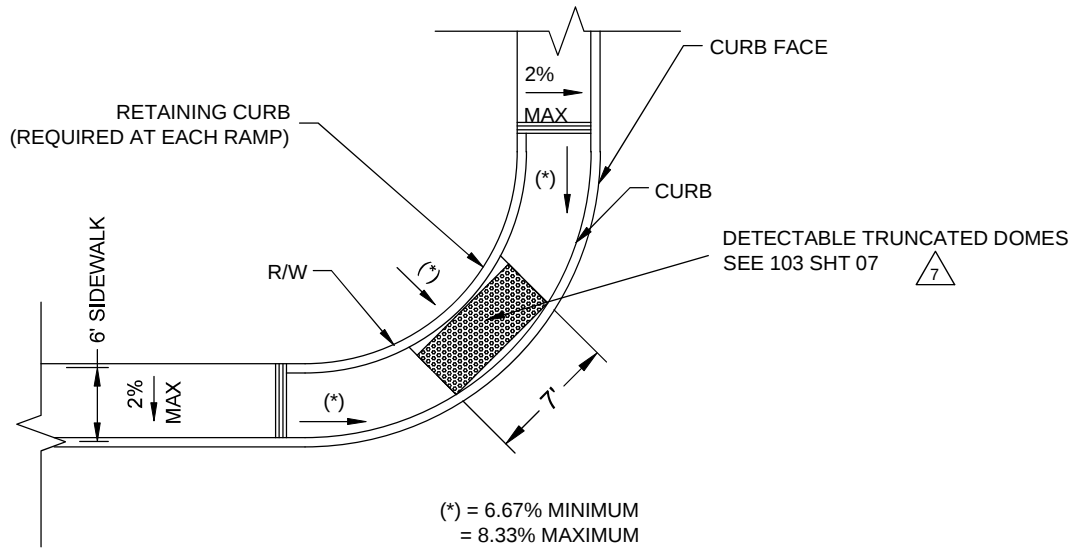
PUBLIC WORKS
DIRECTOR APPROVAL: _____

DATE: May 7, 2014

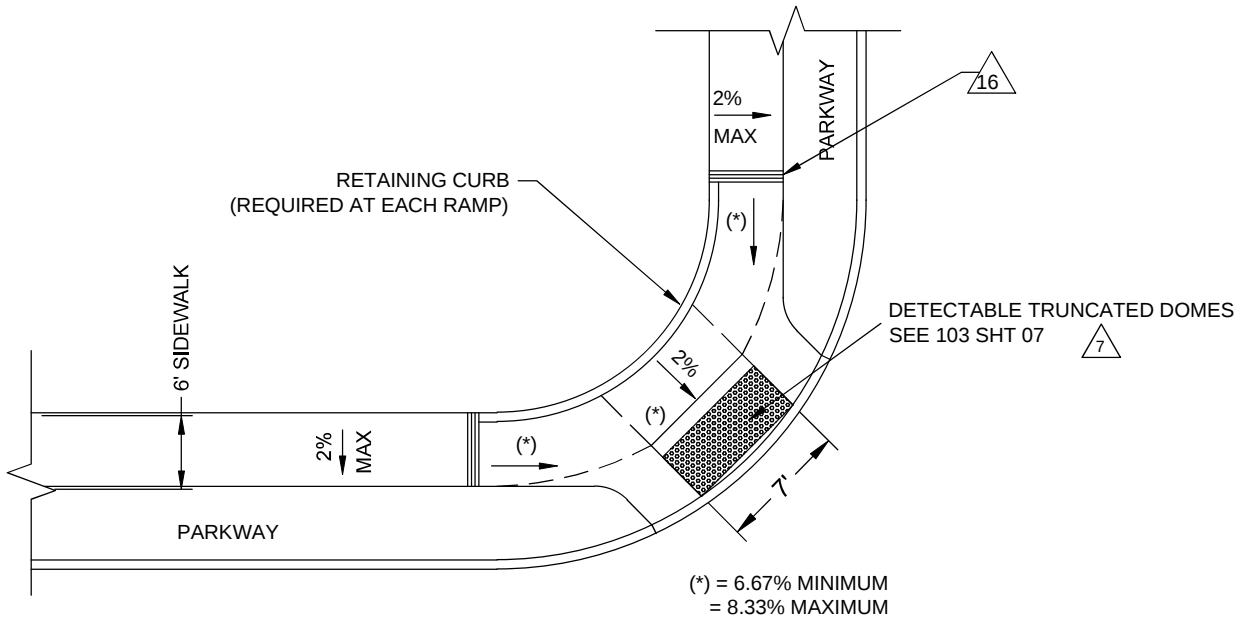
STANDARD PLAN

102-0

SHEET 4 OF 4



NOTE:
FOR INFORMATION NOT SHOWN
SEE CALTRANS STANDARD PLAN A88A AND A88B AND INTERNATIONAL BUILDING CODE



NOTE:
FOR INFORMATION NOT SHOWN
SEE CALTRANS STANDARD PLAN A88A AND A88B AND INTERNATIONAL BUILDING CODE

CURB RAMP DETAILS

NO SCALE

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

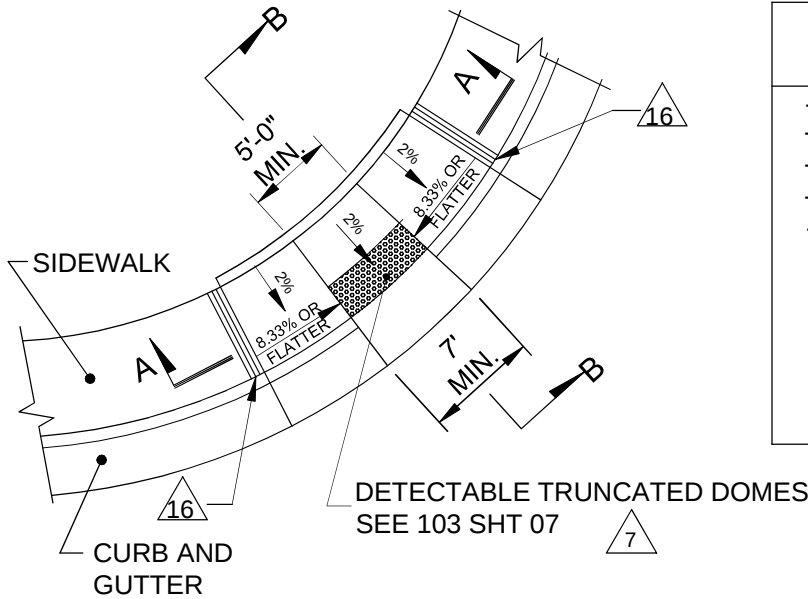
PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

STANDARD PLAN

103-2

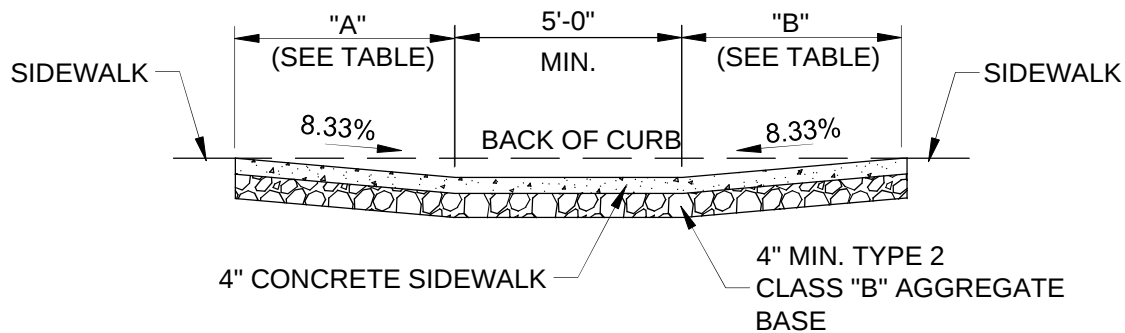
SHEET 2 OF 8



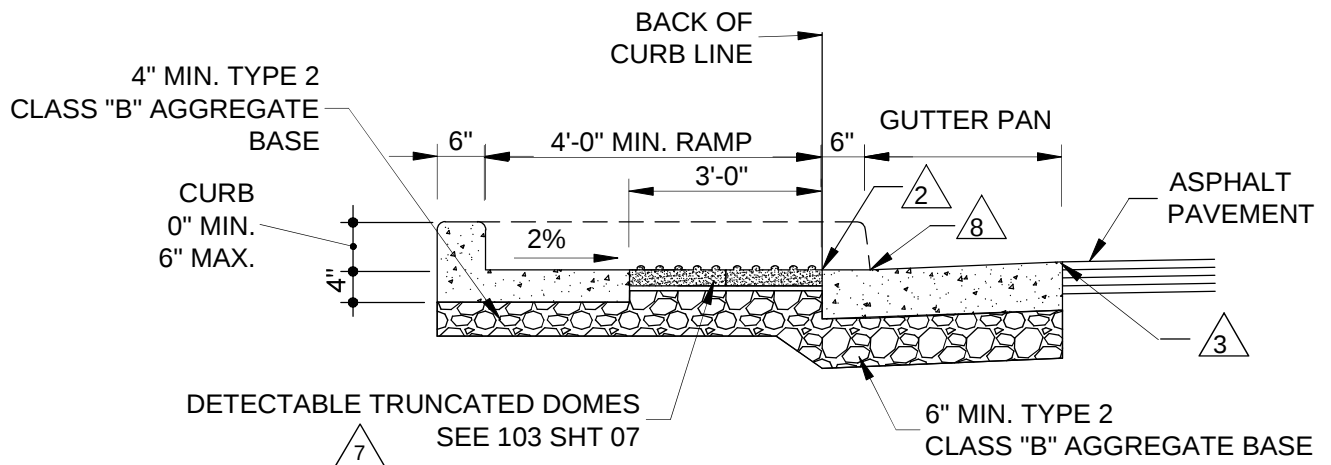
GRADE % "B" TO "A"	"A" MINIMUM	"B" MINIMUM
-6 TO -5.01	4'-0"	12'-6"
-5 TO -4.01	4'-0"	10'-0"
-4 TO -3.01	4'-0"	8'-6"
-3 TO -2.01	4'-0"	7'-6"
-2 TO -1.01	4'-6"	6'-6"
-1 TO 1	5'-6"	5'-6"
1.01 TO 2	6'-6"	4'-6"
2.01 TO 3	7'-6"	4'-0"
3.01 TO 4	8'-6"	4'-0"
4.01 TO 5	10'-0"	4'-0"
5.01 TO 6	12'-6"	4'-0"

TRANSITION LENGTH TABLE
FOR 8.33% SIDE SLOPE

PEDESTRIAN RAMP PLAN



SECTION A-A



SECTION B-B

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

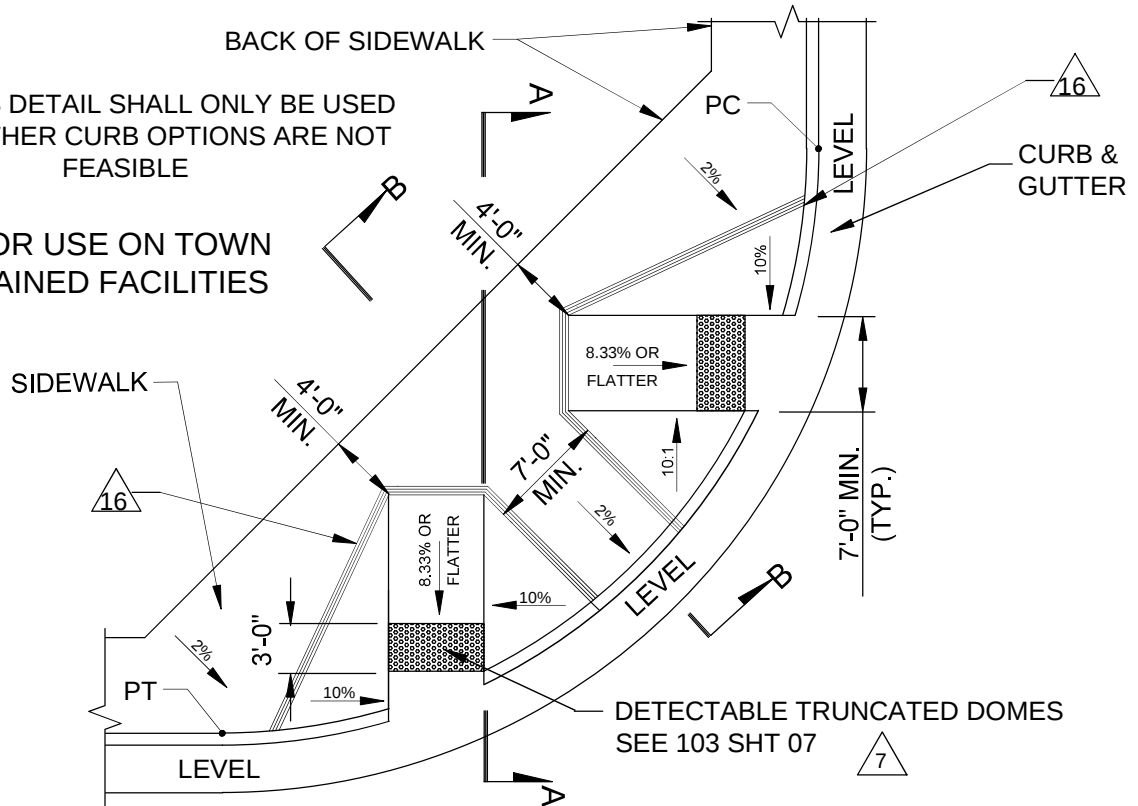
STANDARD PLAN

103-1

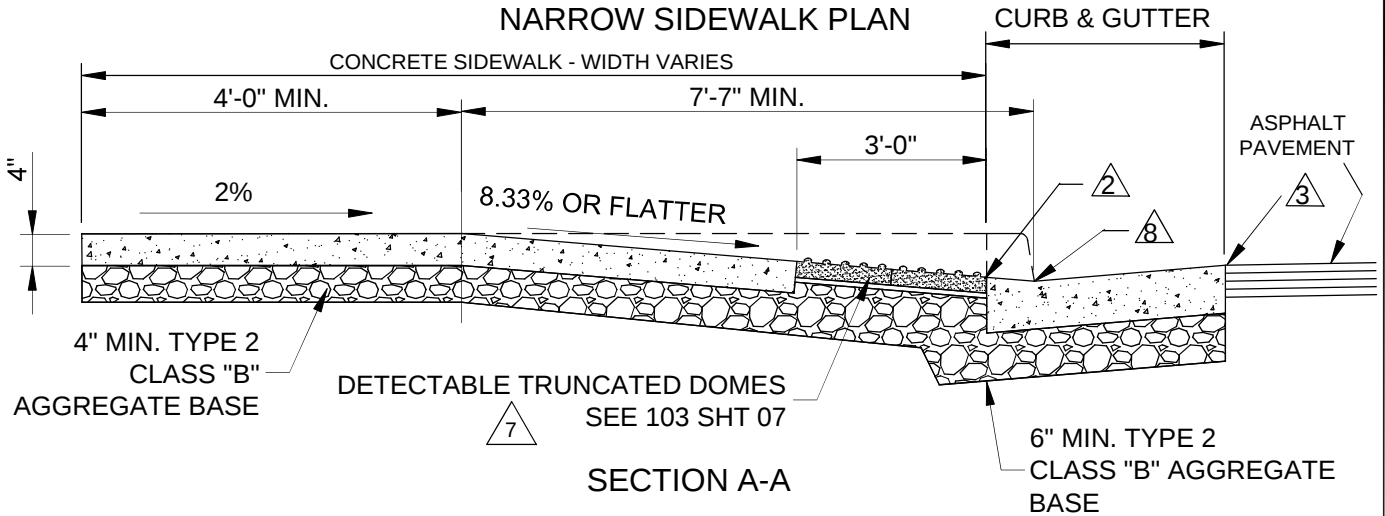
SHEET 3 OF 8

NOTE: THIS DETAIL SHALL ONLY BE USED WHERE OTHER CURB OPTIONS ARE NOT FEASIBLE

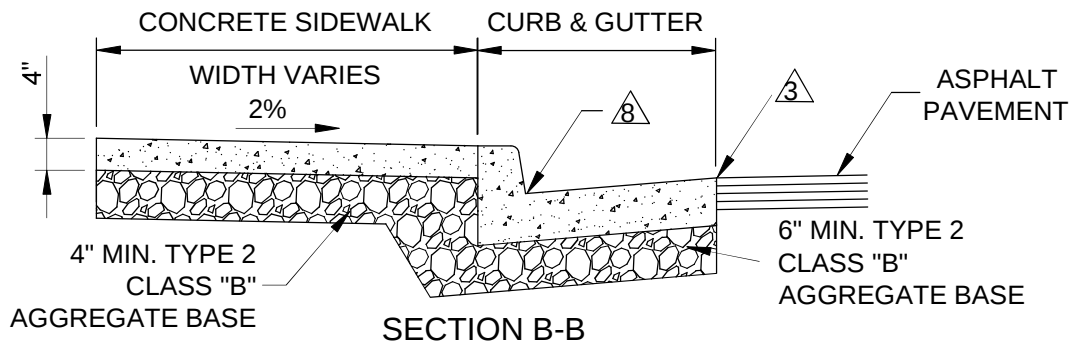
NOT FOR USE ON TOWN MAINTAINED FACILITIES



NARROW SIDEWALK PLAN



SECTION A-A



SECTION B-B

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

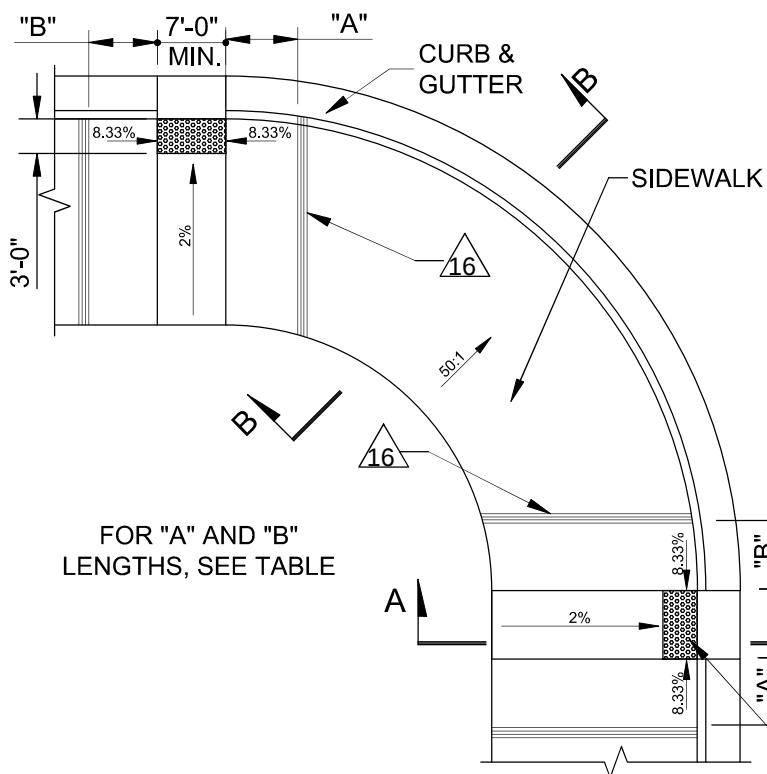
PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

STANDARD PLAN

103-1

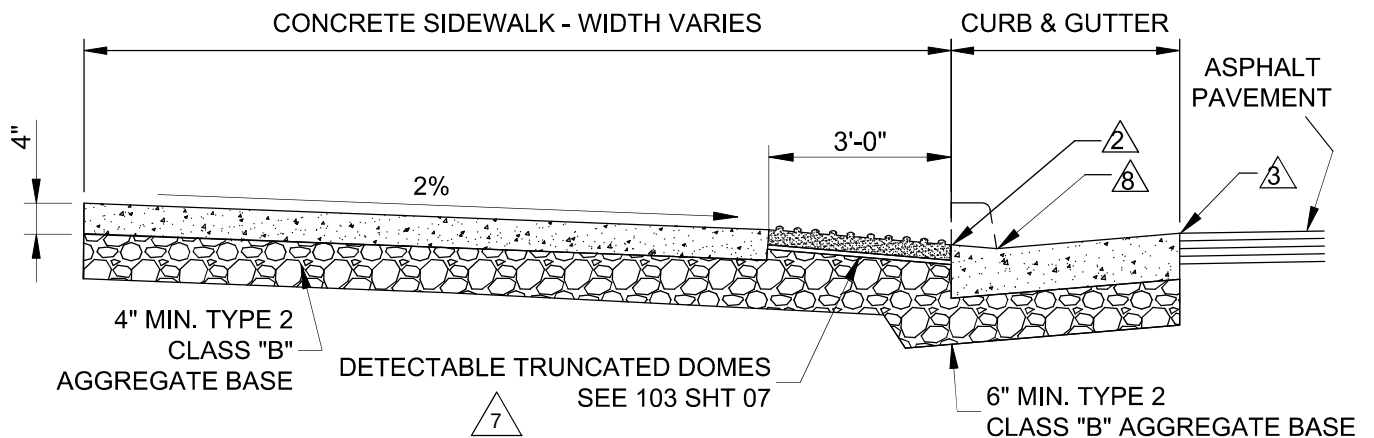
SHEET 4 OF 8



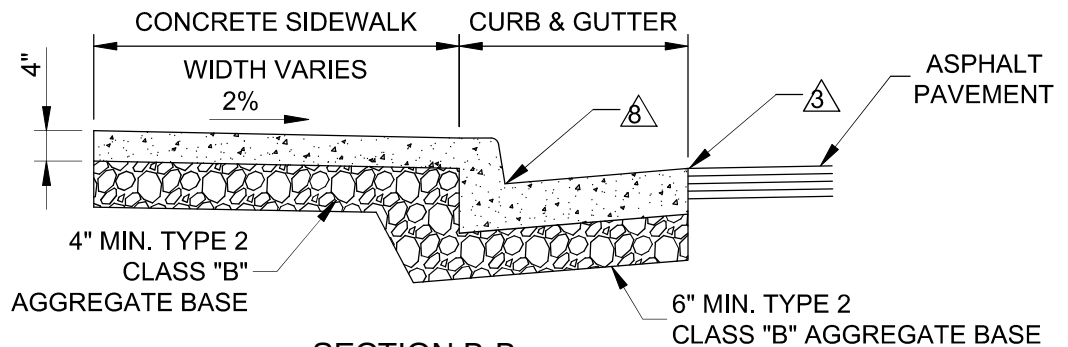
GRADE % "B" TO "A"	"A" MINIMUM	"B" MINIMUM
-6 TO -5.01	4'-0"	12'-6"
-5 TO -4.01	4'-0"	10'-0"
-4 TO -3.01	4'-0"	8'-6"
-3 TO -2.01	4'-0"	7'-6"
-2 TO -1.01	4'-6"	6'-6"
-1 TO 1	5'-6"	5'-6"
1.01 TO 2	6'-6"	4'-6"
2.01 TO 3	7'-6"	4'-0"
3.01 TO 4	8'-6"	4'-0"
4.01 TO 5	10'-0"	4'-0"
5.01 TO 6	12'-6"	4'-0"

**TRANSITION LENGTH TABLE
FOR 8.33% SIDE SLOPE**

WIDE SIDEWALK PLAN



SECTION A-A



SECTION B-B

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: **May 7, 2014**

STANDARD PLAN

103-2

SHEET 5 OF 8

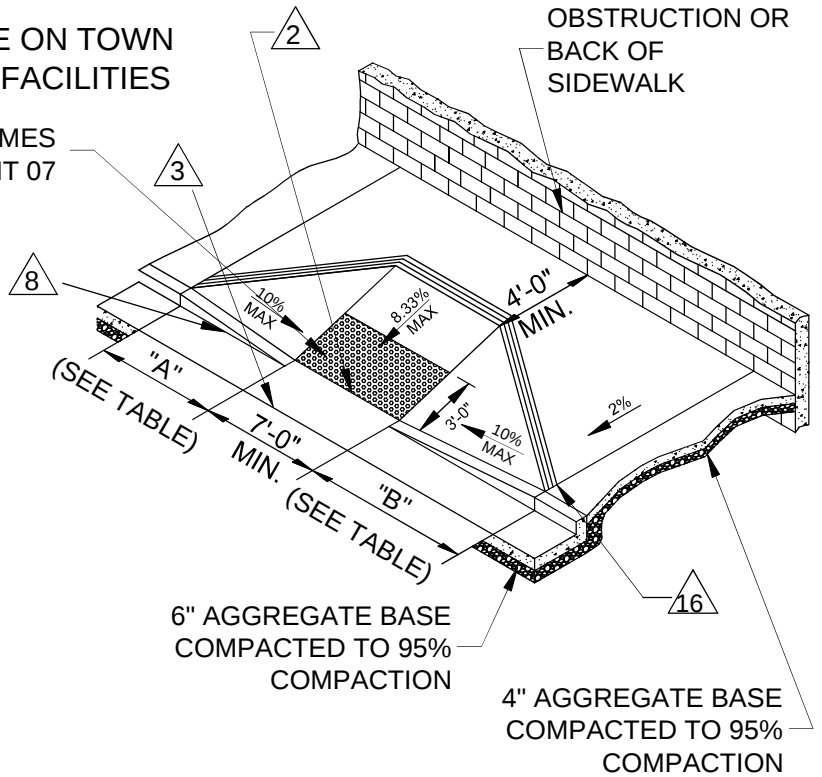
NOT FOR USE ON TOWN
MAINTAINED FACILITIES

DETECTABLE TRUNCATED DOMES
SEE 103 SHT 07

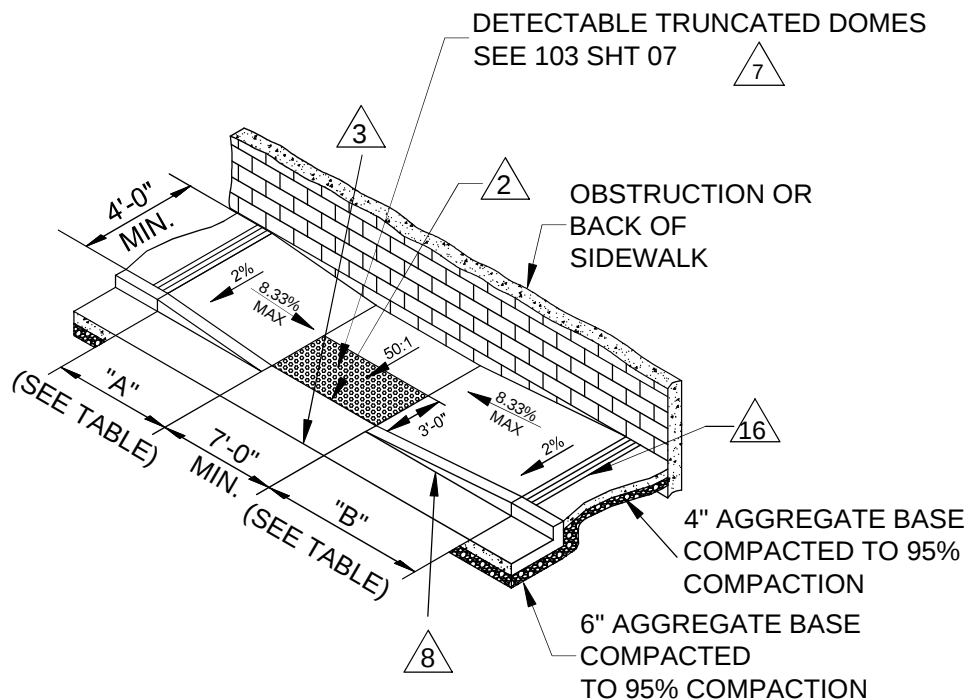


GRADE % "B" TO "A"	"A" MINIMUM	"B" MINIMUM
-6 TO -5.01	4'-0"	12'-6"
-5 TO -4.01	4'-0"	10'-0"
-4 TO -3.01	4'-0"	8'-6"
-3 TO -2.01	4'-0"	7'-6"
-2 TO -1.01	4'-6"	6'-6"
-1 TO 1	5'-6"	5'-6"
1.01 TO 2	6'-6"	4'-6"
2.01 TO 3	7'-6"	4'-0"
3.01 TO 4	8'-6"	4'-0"
4.01 TO 5	10'-0"	4'-0"
5.01 TO 6	12'-6"	4'-0"

TRANSITION LENGTH TABLE
FOR 8.33% SIDE SLOPE



PEDESTRIAN RAMP
MIDBLOCK - WIDE SIDEWALK OVER 10'



PEDESTRIAN RAMP
MIDBLOCK - NARROW SIDEWALK 10' AND UNDER

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

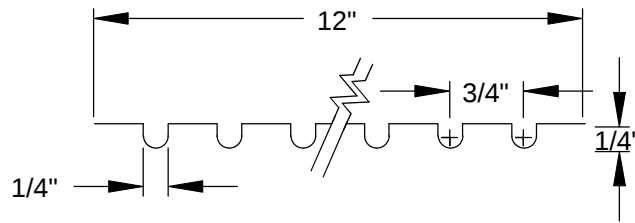
PUBLIC WORKS
DIRECTOR APPROVAL:

DATE: May 7, 2014

STANDARD PLAN

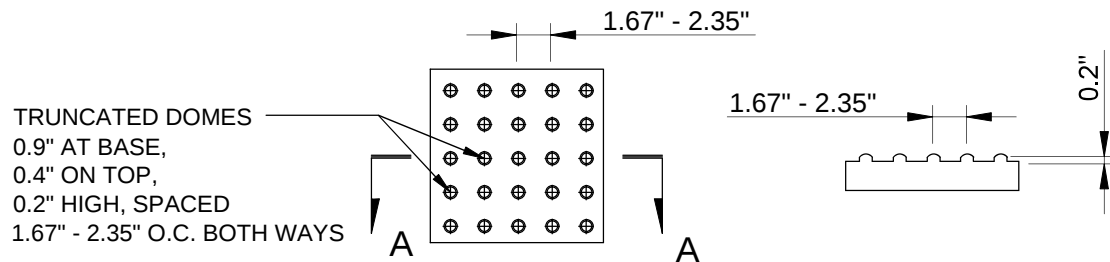
103-1

SHEET 6 OF 8



GROOVING DETAIL

NO SCALE

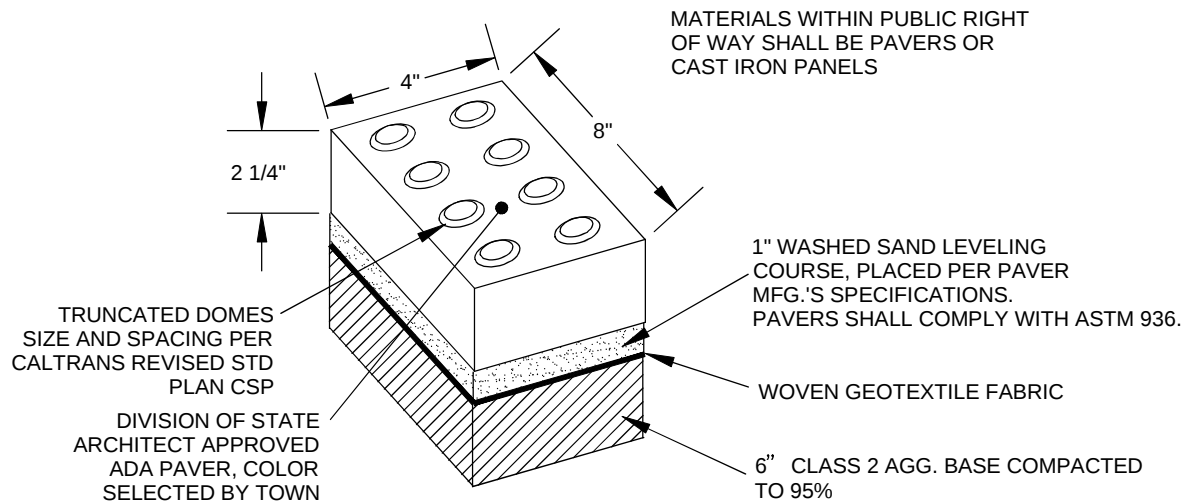


PLAN

SECTION A-A

TRUNCATED DOMES DETAIL

NO SCALE



DETECTABLE WARNING PAVER DETAIL

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

STANDARD PLAN

103-2

SHEET 7 OF 8

GENERAL NOTES FOR PEDESTRIAN RAMPS

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. NO LIP SHALL BE PERMITTED AT THE CURB RAMP SLOPE TO GUTTER PAN. THIS TRANSITION SECTION SHALL BE A MONOLITHIC POUR.
3. AC SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP.
4. OTHER CURB RAMPS MAY BE USED FROM THE AMERICAN PUBLIC WORKS ASSOCIATION (SOUTHERN CALIFORNIA CHAPTER) STANDARD PLANS (CURRENT VERSION) AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
5. RAMP WIDTH SHALL BE NO LESS THAN 7' AND DESIGNED TO ACCOMMODATE SNOW REMOVAL EQUIPMENT ACCESS.
6. SIDEWALKS SHALL BE SCREED TO FORMS. COMPACTED WITH A METAL GRID TO GIVE A 3/8 INCH MORTAR LAYER ON SURFACE AND FINISHED WITH A WOODEN FLOAT TO A MAX. TOLERANCE OF 1/8 INCH IN 6 FEET. TROWLED SMOOTH AND FINISHED WITH A FINE HAIR BRUSH BROOM TRANSVERSELY TO TRAFFIC.
7. CURB RAMPS THAT HAVE A RAMP SLOPE FLATTER THAN 6.67% SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH OF THE RAMP AND 36 INCHES MIN. LENGTH.
8. RAISE GUTTER FLOW LINE 2" MAX WHEN REQUIRED TO PREVENT PONDING AT THE RAMP AND MAINTAIN POSITIVE DRAINAGE.
9. GRATINGS OR SIMILAR ACCESSSES SHALL NOT BE LOCATED IN THE AREA AT THE BASE OF THE CURB RAMP OR LANDING AREA. IF OBSTRUCTIONS SUCH AS GRATINGS, INLETS, UTILITY POLES, PULL BOXES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL OF THE PUBLIC WORKS DIRECTOR.
10. ROUGH BROOM TEXTURE ON CURB RAMPS AND WINGS, TRANSVERSE TO AXIS OF RAMP. TEXTURE SHALL PROVIDE A VISUAL CONTRAST TO THE SIDEWALK.
11. CURB RAMP WINGS DO NOT HAVE TO BE WITHIN CROSSWALK. HOWEVER, THE RAMP ITSELF HAS TO BE INSIDE CROSSWALK, UNLESS OTHERWISE DIRECTED BY THE PUBLIC WORKS DIRECTOR.
12. ALL RAMPS SHALL BE 12:1 OR FLATTER.
13. ALL SLOPE RATES ARE RELATIVE TO LEVEL.
14. ALL CONCRETE TO BE REMOVED TO FULL JOINT AND SAW CUT TO EXPANSION JOINTS.
15. CONTRACTORS SHALL MAKE EVERY EFFORT TO CORRECT ANY CONFLICT WITH EXISTING PULL BOXES AND INSTALLATION OF NEW PEDESTRIAN RAMPS. THE PUBLIC WORKS DIRECTOR SHALL MAKE THE FINAL DETERMINATION REGARDING THE DEGREE OF MODIFICATIONS REQUIRED BY THE CONTRACTOR FOR CONFLICTS BETWEEN EXISTING PULL BOXES AND NEW PEDESTRIAN RAMPS.
16. CURB RAMP SHALL BE OUTLINED AS SHOWN WITH A 1 FOOT WIDE BORDER WITH 1/4 INCH GROOVES APPROXIMATELY 3/4 INCH ON CENTER. SEE GROOVING DETAIL
17. ALL CURB RAMPS MUST COMPLY WITH APPLICABLE ADA STANDARDS UNLESS AN EXCEPTION IS DOCUMENTED BY THE TOWN AND INCLUDED IN THE STREET FILES AND ACCESSIBILITY COMPLIANCE FORM.
18. FOR INFORMATION NOT SHOWN REFER TO BUILDING CODE, APWA ,STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION AND DEPARTMENT OF JUSTICE.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PEDESTRIAN RAMPS

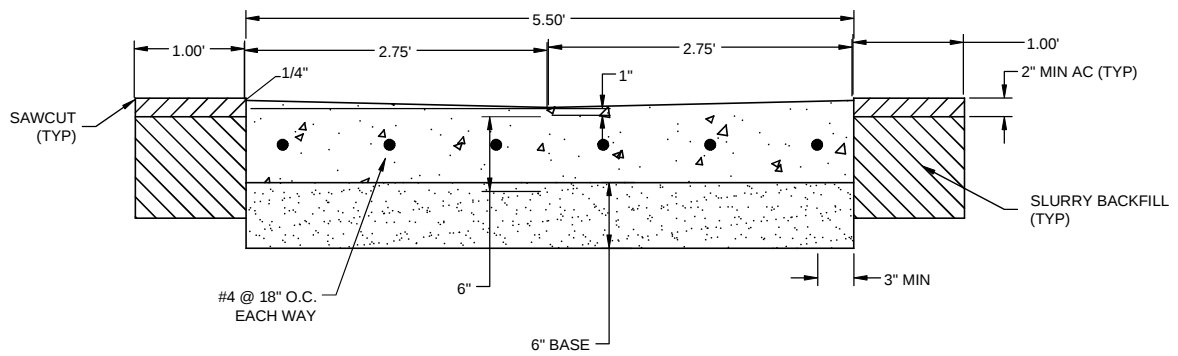
PUBLIC WORKS
DIRECTOR APPROVAL: 

DATE: May 7, 2014

STANDARD PLAN

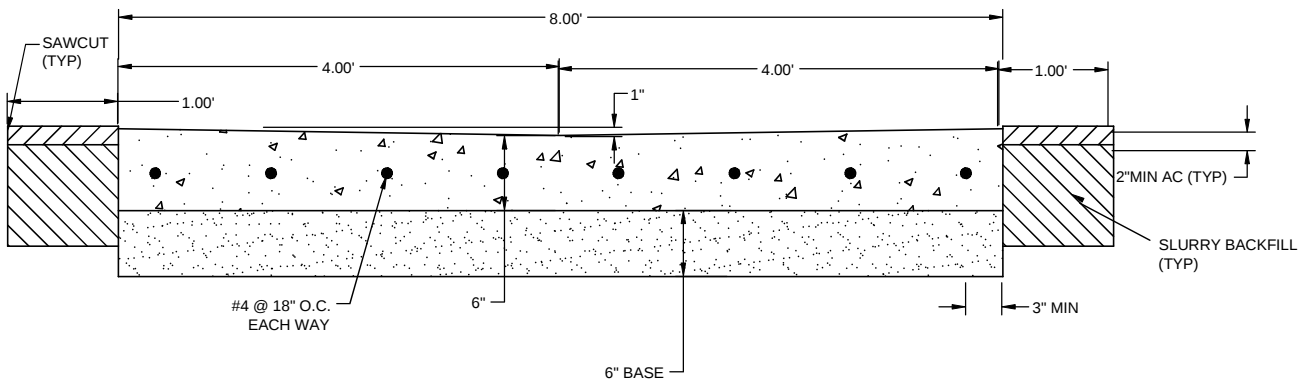
103-2

SHEET 8 OF 8



TYPICAL PCC GUTTER

NO SCALE



TYPICAL PCC GUTTER SECTION

NO SCALE

NOTES:

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. WEAKENED PLANE JOINTS SHALL BE TOOLED AND NOT PLACED IN THE WHEEL PATH.
3. DOWELS FOR WEAKENED PLANE OR CONTACT JOINTS SHALL BE #4 BARS 18 INCHES LONG.
4. PLACE A WEAKENED PLANE OR CONTACT JOINT WHERE LONGITUDINAL ALLEY GUTTER JOINS CONCRETE ALLEY INTERSECTION.
5. ALL EXPOSED CORNERS ON PCC GUTTERS SHALL BE ROUNDED WITH A 1/2 INCH RADIUS.
6. CONCRETE SHALL BE INTEGRAL WITH CURB UNLESS OTHERWISE SPECIFIED.
7. INDUSTRIAL AREAS GUTTERS SHALL BE MINIMUM 8" THICK.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



CROSS GUTTER

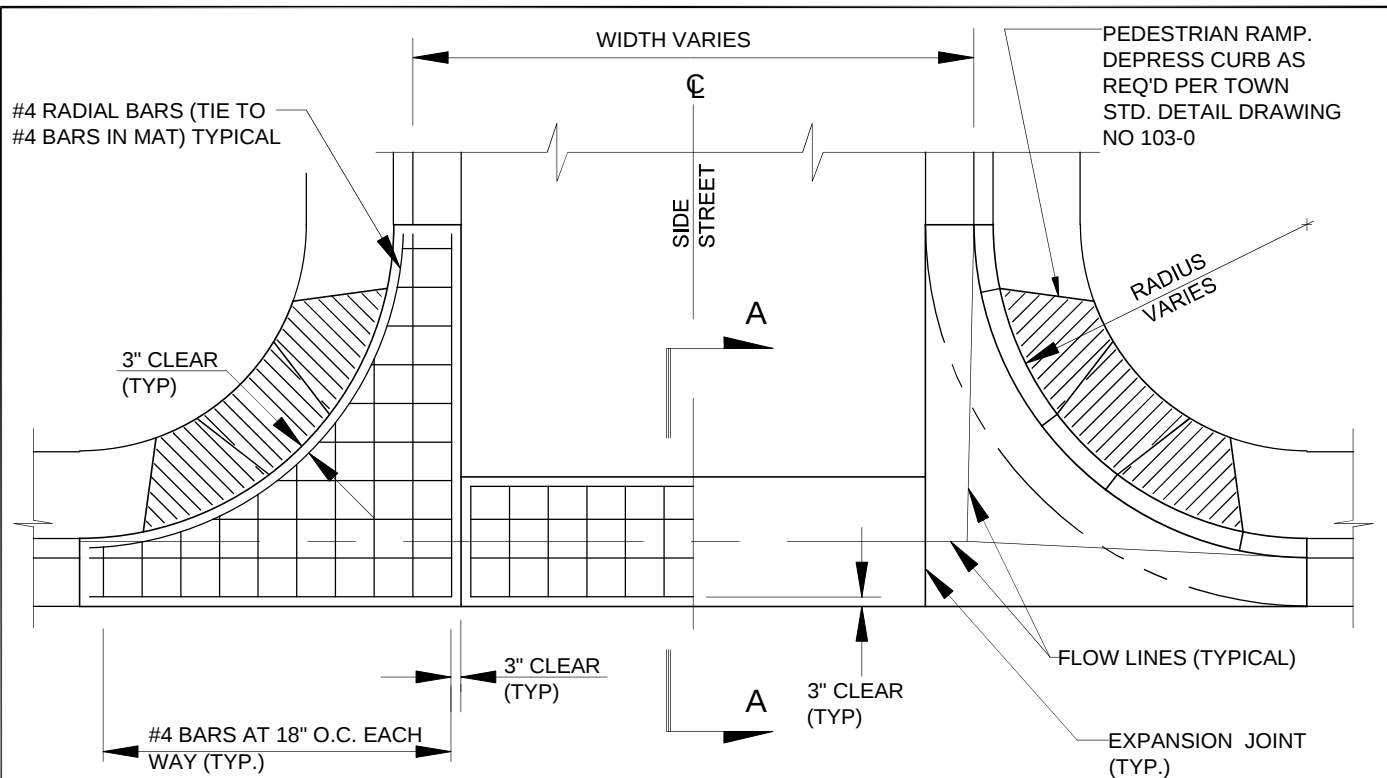
PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: **May 7, 2014**

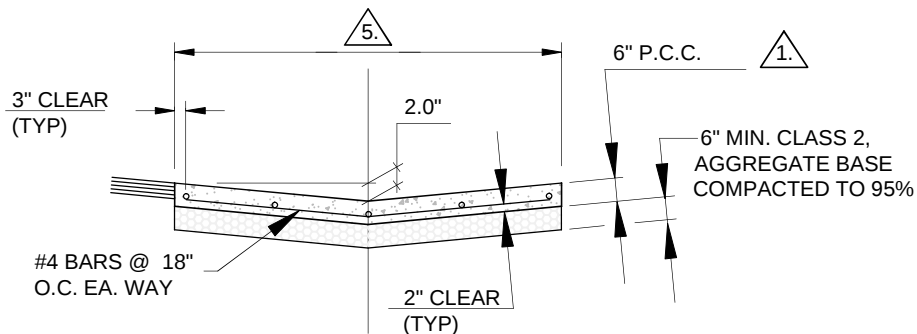
STANDARD PLAN

104-1

SHEET 1 OF 3



PCC VALLEY GUTTER PLAN



SECTION A-A

NOTES:

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. FOR INDUSTRIAL AREAS, AN ENGINEERED DESIGN IS REQUIRED.
3. AGGREGATE BASE SHALL BE ENGINEERED CLASS 2 WITH 95% COMPACTION.
4. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
5. LOCAL AND COLLECTOR STREETS, W = 6 FEET.
ARTERIAL STREETS (DRIVEWAYS ONLY), W = 10 FEET.
6. VALLEY GUTTER SECTIONS (SPANDRELS) ALONG CURB & GUTTER MAY BE A MONOLITHIC POUR AS SHOWN.
7. ALL COLD JOINTS SHALL BE DOWELED

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



CROSS GUTTER

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

STANDARD PLAN

104-1

SHEET 2 OF 3



1. THIS GUTTER DESIGN IS ONLY FOR USE ON PRIVATE DRIVES AND PARKING LOTS.
2. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AS APPROVED BY THE PUBLIC WORKS DIRECTOR
3. LONGITUDINAL VALLEY GUTTER SHALL HAVE EXPANSION JOINTS EVERY 30 FEET AND WEAKENED PLANE JOINTS EVERY 10 FEET.
4. FOR INDUSTRIAL AREAS, GUTTER SHALL BE A MINIMUM OF 8 INCHES THICK.
5. AGGREGATE BASE SHALL BE ENGINEERED TYPE 2, CLASS B, COMPACTED TO A MINIMUM OF 95%.
6. GUTTER DEPTH AND WIDTH TO BE APPROVED BY PUBLIC WORKS DIRECTOR

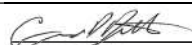
GENERAL NOTES AND SPECIFICATIONS FOR RESIDENTIAL DRIVEWAY STANDARDS

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. CONCRETE MAY BE REINFORCED WITH #4 REBAR PLACED 12" ON CENTER EACH WAY.
3. SUBGRADE SHALL BE AT OPTIMUM MOISTURE AND COMPACTED TO A MIN. OF 95% RELATIVE COMPACTION.
4. BASE AND FORMS TO BE WATERED BEFORE PLACING CONCRETE.
5. CROSS GUTTER SHALL BE SCREEDED TO FORMS AND BROOMED FINISHED PARALLEL TO FLOWLINE.
6. CONCRETE SHALL BE CURED WITH IMMEDIATE APPLICATION OF A CURING COMPOUND.
7. DRIVEWAY WIDTH TO BE 12 TO 24 FEET FOR RESIDENTIAL DRIVEWAYS.
8. ALL DRIVEWAY AND PARKING AREAS ARE TO BE PAVED WITH ASPHALT, CONCRETE, OR APPROVED PAVING STONES.
9. NO REQUIRED PARKING IS TO BE PERMITTED IN THE RIGHT-OF-WAY.
11. DRIVEWAYS WHICH RUN PARALLEL TO THE STREET SHALL MAINTAIN THE MIN. SETBACK PER THE ZONING ORDINANCE.
12. DRIVEWAY APPROACH CONSTRUCTION SHALL NOT CAUSE FILLING OR CUTTING IN THE RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT.
13. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE ON DRIVEWAY APPROACHES AND ANY INSTALLED CULVERTS.
14. SNOW REMOVED FROM DRIVEWAY SHALL NOT BE PLACED IN RIGHT-OF-WAY.
15. WHERE STORM DRAIN FACILITIES ARE IN THE STREET, AN INLET SHALL BE INSTALLED UPHILL FROM THE DRIVEWAY
16. THE PUBLIC WORKS DEPARTMENT RECOMMENDS THAT DRIVEWAY ENTRANCES BE IDENTIFIED FOR SNOW REMOVAL OPERATIONS WITH RED REFLECTORS WHICH SHALL BE PLACED A MIN. OF 2 FEET TO THE PROPERTY SIDE OF THE TOWN SNOW POLE LINE.
17. AN ENCROACHMENT OR DRIVEWAY MODIFICATION PERMIT IS REQUIRED FOR ALL WORK PERFORMED IN THE PUBLIC RIGHT-OF-WAY.
18. THE TOWN PUBLIC WORKS DEPARTMENT MUST BE NOTIFIED A MIN. OF 24 HOURS PRIOR TO STARTING WORK AND FOR ANY INSPECTIONS. TO NOTIFY THE TOWN CALL THE INSPECTION LINE AT 934-BLDG
19. ADDITIONAL EASEMENTS FOR SIDEWALKS MAY BE REQUIRED WHERE THEY ARE REQUIRED DUE TO SLOPES OR OTHER TOPOGRAPHICAL FEATURES.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



RESIDENTIAL DRIVEWAY STANDARDS

PUBLIC WORKS
DIRECTOR APPROVAL: 

DATE: May 7, 2014

STANDARD PLAN

105-1

SHEET 1 OF 3

RESIDENTIAL DRIVEWAY STANDARDS

THE FOLLOWING SHALL BE CONSIDERED MINIMUM STANDARDS FOR NEW RESIDENTIAL DRIVEWAYS.

PLANS SUBMITTED FOR THE PURPOSE OF OBTAINING A BUILDING PERMIT OR ENCROACHMENT PERMIT SHALL INCLUDE A PLAN VIEW AND DRIVEWAY SLOPE PROFILE TO VERIFY COMPLIANCE WITH THE MINIMUM DRIVEWAY STANDARDS

1. ONLY ONE DRIVEWAY ENTRANCE/EXIT SHALL BE PERMITTED TO SERVE EACH PARCEL. (EXCEPTION: CORNER LOTS WITH A TOTAL FRONTAGE EXCEEDING 125 FEET MAY HAVE TWO ENTRANCES/EXITS, PROVIDED THERE IS A MINIMUM SEPARATION OF 50 FEET BETWEEN DRIVEWAYS OR STREET INTERSECTIONS.)
2. THE DRIVEWAY FRONTAGE, WIDTH AT ROAD RIGHT-OF-WAY, SHALL BE:
MINIMUM-MAXIMUM
12' - 24' SINGLE FAMILY RESIDENCE TO FOUR-PLEX
3. THE ANGLE OF THE DRIVEWAY TO THE ROAD/STREET SHALL BE NOT LESS THAN 60 DEGREES WHEN WITHIN THE REQUIRED SETBACK AND THE PUBLIC RIGHT-OF-WAY.
4. DRIVEWAY ENCROACHMENTS WITHIN THE TOWN RIGHT-OF-WAY SHALL BE PER "RESIDENTIAL DRIVEWAY APPROACH STANDARDS" SECTION 105
5. THE MAXIMUM GRADE (SLOPE) IF THE DRIVEWAY WITHIN THE TOWN RIGHT-OF-WAY SHALL NOT EXCEED 10% (ONE FOOT VERTICAL PER 10 FEET HORIZONTAL).
6. MAXIMUM GRADE (SLOPE) OF PARKING AREAS SHALL NOT EXCEED 5% (ONE FOOT VERTICAL IN TWENTY FEET HORIZONTAL).
9. ALL OTHER AREAS OF THE DRIVEWAY SHALL NOT EXCEED 15%. (THE PUBLIC WORKS DEPARTMENT RECOMMENDS THAT DRIVEWAY SLOPES NOT EXCEED 10%).
10. MODIFICATIONS OR DEVIATIONS FROM THESE STANDARDS ARE SUBJECT TO APPROVAL BY THE PUBLIC WORKS DIRECTOR.

DRIVEWAY STANDARDS-MODIFICATION PROCEDURES

- A. MODIFICATIONS TO THE DRIVEWAY STANDARDS WITHIN THE PUBLIC RIGHT-OF-WAY, MAY BE CONSIDERED PROVIDING THE FOLLOWING FINDINGS CAN BE MADE:
 1. THERE ARE EXCEPTIONAL OR EXTRAORDINARY CIRCUMSTANCES APPLICABLE TO THE PROPERTY INVOLVED WHICH DO NOT APPLY GENERALLY TO OTHER PROPERTIES.
 2. A STANDARD DRIVEWAY WOULD CAUSE A SAFETY HAZARD.
- B. WRITTEN REQUESTS FOR MODIFICATION TO THESE STANDARDS WILL BE REVIEWED AND A DECISION RENDERED BY THE PUBLIC WORKS DIRECTOR WITHIN TEN WORKING DAYS OF RECEIPT OF WRITTEN REQUEST FROM THE PROPERTY OWNER.
- C. DECISIONS MAY BE APPEALED TO THE TOWN PLANNING COMMISSION PROVIDED THE APPEAL IS RECEIVED BY THE TOWN PLANNING DIRECTOR IN WRITING WITHIN 10 WORKING DAYS OF THE DECISION. THE APPEAL WILL BE SCHEDULED AT THE NEXT AVAILABLE PLANNING COMMISSION MEETING, APPLICANT SHALL BE RESPONSIBLE FOR APPLICABLE APPEAL FEES.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



RESIDENTIAL DRIVEWAY STANDARDS

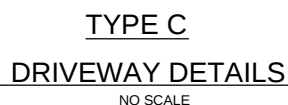
PUBLIC WORKS
DIRECTOR APPROVAL: 

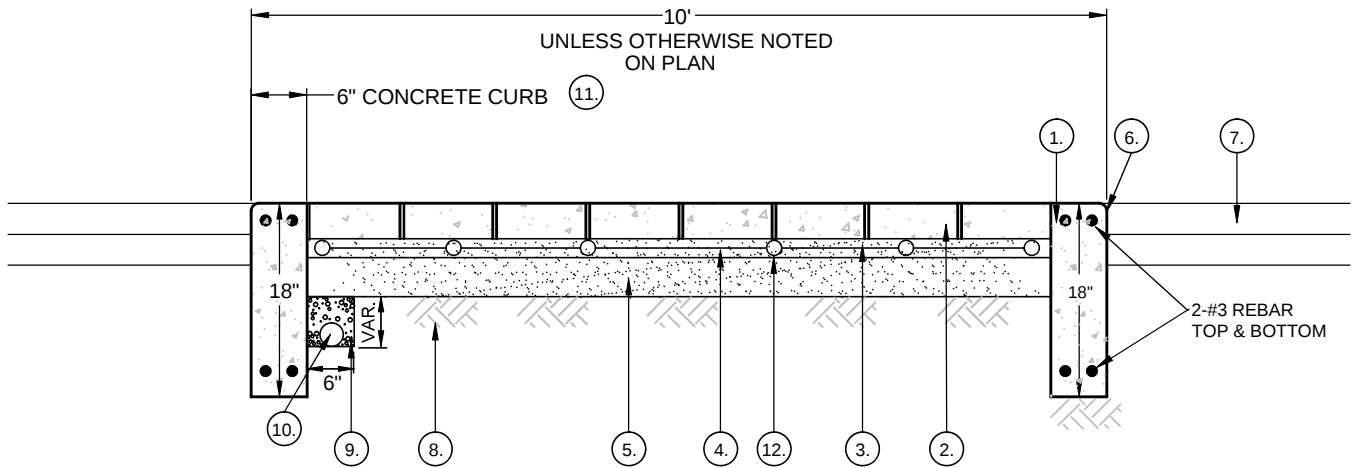
DATE: May 7, 2014

STANDARD PLAN

105-1

SHEET 2 OF 3





PAVER WALKWAY WITH SNOW MELT DETAIL
NO SCALE

CONSTRUCTION NOTES

1. CONCRETE SHALL BE PER TOWN STANDARDS PLAN 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. PAVING STONES, BASALITE TYPE OR UNI-DECOR OR EQUAL FINISHED SURFACE SHALL BE FLUSH WITH THE TOP OF CURB AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. STONES SHALL BE 60MM FOR SIDEWALKS AND 80MM FOR STREETS.
3. 1 INCH MAX. WASHED SAND LEVELING COURSE, PLACED PER PAVER MANUFACTURER'S SPECIFICATIONS AND ASTM 936.
4. WOVEN GEOTEXTILE FABRIC MATERIAL.
5. 12 INCH CLASS II AGGREGATE BASE COMPACTED TO 95% MINIMUM OF MAXIMUM DENSITY.
6. PROVIDE CONTROL JOINTS AT 10 FOOT INTERVALS AND EXPANSION JOINTS AT 30 FOOT INTERVALS.
7. PAVEMENT SECTION PER PROJECT PLANS, SEE TOWN STANDARDS PLAN 006.
8. FIRM EXISTING GROUND COMPACTED TO 95% MAXIMUM RELATIVE DENSITY.
9. CALTRANS CLASS I PERMEABLE MATERIAL PER CSS SECTION 68-1.025 AROUND 4 INCH SUB DRAIN PIPE.
10. 4 INCH PERFORATED HDPE SUBDRAIN (LOCATION PER DRAINAGE PLANS). DRAIN TO DAYLIGHT OR DRYWELL.
11. CONCRETE CURB PER TOWN STANDARDS PLAN 102.
12. HEATING PIPE WHERE REQUIRED (PEX OR EQUAL). DESIGN REQUIRED BY CIVIL OR MECHANICAL ENGINEER.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PAVER WALKWAY WITH SNOW MELT

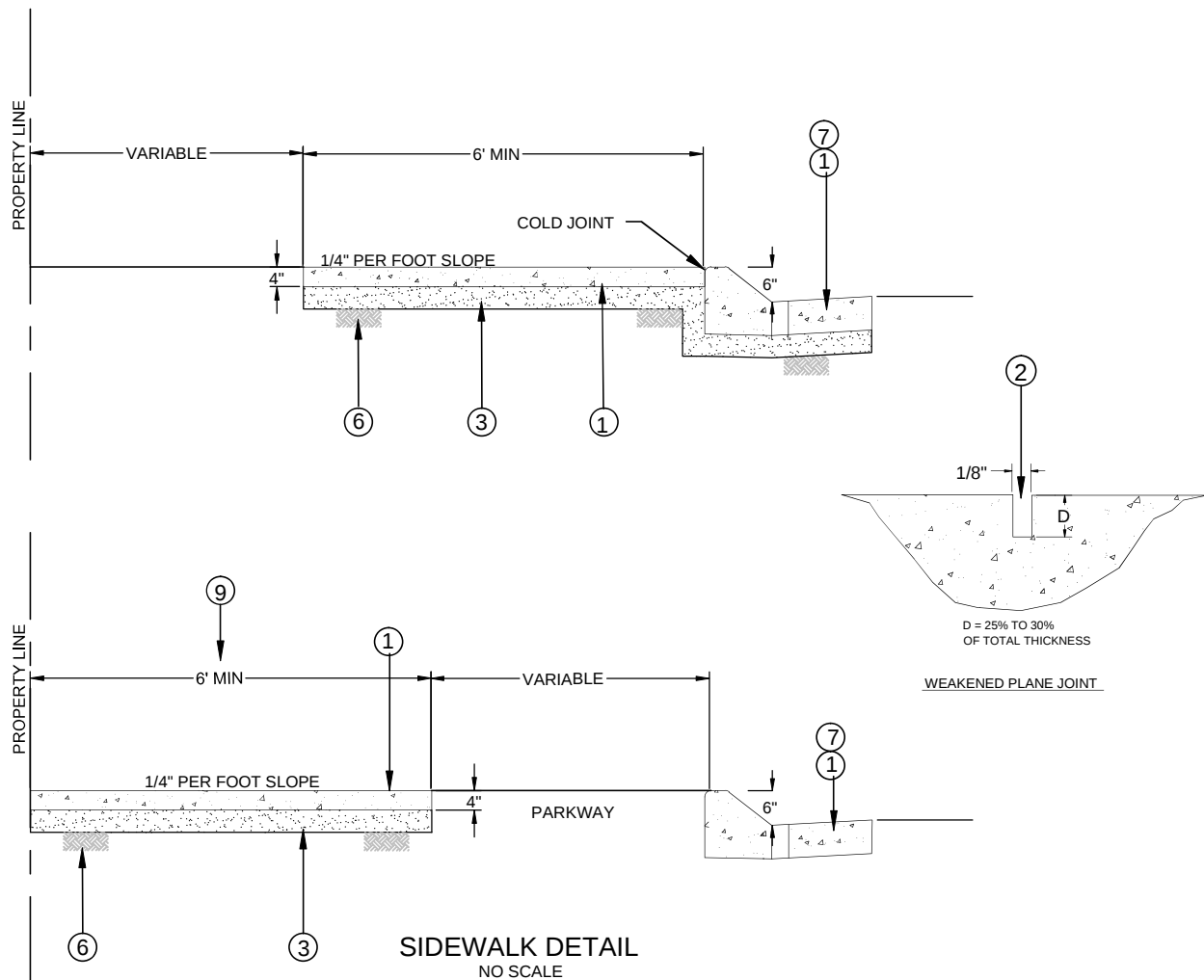
PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: **May 7, 2014**

STANDARD PLAN

106-2

SHEET 1 OF 1



CONSTRUCTION NOTES FOR SIDEWALK STANDARDS

1. CONCRETE SHALL BE PER TOWN STANDARD 004, AND AS APPROVED BY PUBLIC WORKS DIRECTOR.
2. PLACE WEAKENED PLANE JOINTS AT 5 FOOT INTERVALS. PLACE CONTROL JOINTS IN ACCORDANCE WITH ACI 224.3R-95 AND SHEET 4 OF 4 OF STANDARD PLAN 102.
3. 4 INCH CLASS II AGGREGATE BASE SHALL BE THOROUGHLY WATERED AND COMPACTED TO 95%.
4. BASE AND FORMS SHALL BE WATERED BEFORE PLACING CONCRETE.
5. SIDEWALKS SHALL BE SCREEDDED TO FORMS, COMPACTED WITH A METAL GRID TO GIVE A 3/8 INCH MORTAR LAYER ON SURFACE FINISHED WITH A WOODEN FLOAT TO A MAXIMUM TOLERANCE OF 1/8 INCH IN 6 FEET, TROWELED SMOOTH AND FINISHED WITH A FINE HAIR BRUSH BROOM TRANSVERSELY TO TRAFFIC.
6. SUBGRADE SHALL BE SCARIFIED 6 INCHES AND COMPACTED TO 95% RELATIVE DENSITY.
7. CURB AND GUTTER SHALL CONFORM TO TOWN STANDARD 102.
8. WHEN SIGN OR OTHER POLES ARE REQUIRED SIDEWALK SHALL BE WIDENED TO PROVIDE A 6 FOOT CLEARANCE.
9. 6 FOOT MIN CLEAR FOR PUBLIC SIDEWALKS. ADDITIONAL WIDTH REQUIRED FOR HIGH PEDESTRIAN AREAS AND TO PROVIDE CLEARANCE FOR SIGN POSTS, LIGHT, OR OTHER OBJECTS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SIDEWALK STANDARDS

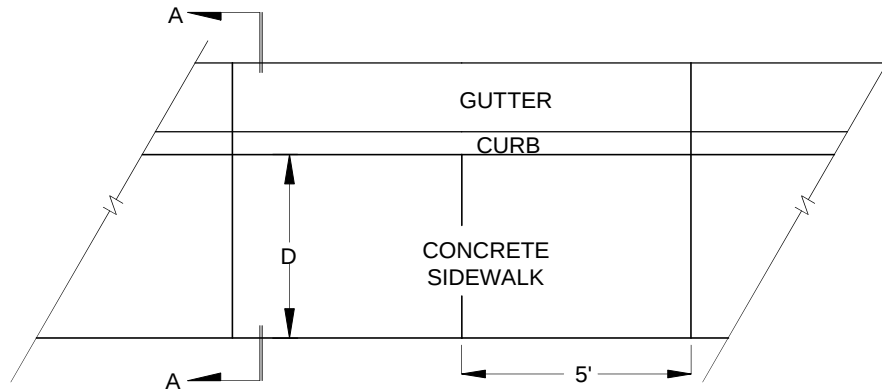
PUBLIC WORKS
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DATE: May 7, 2014

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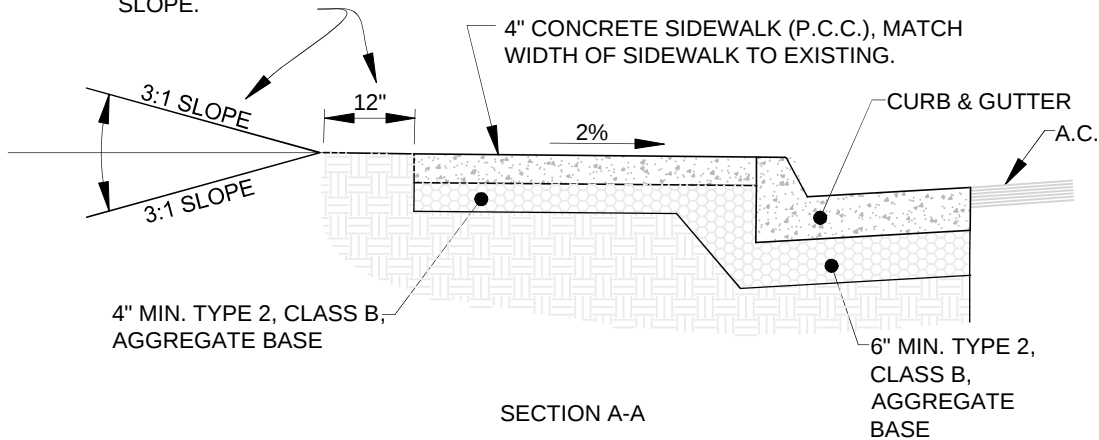
107-2

SHEET 1 OF 1



SIDEWALK DETAIL

BACKFILL SHALL BE TO 90% RELATIVE COMPACTION BEHIND SIDEWALK FOR A HORIZ. DISTANCE OF 1 FOOT, WITH A MATCH TO EXISTING GRADE OF NOT EXCEEDING A 3:1 SLOPE.



SECTION A-A

NOTES:

1. MIN. CURB RADIUS SHALL BE 15 FEET, UNLESS OTHERWISE SPECIFIED.
2. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10 FOOT INTERVALS.
3. ON SIDEWALKS WIDER THAN 5 FEET, JOINTING PATTERN SHALL BE .8 TO 1.2 TIMES THE WIDTH OF THE SIDEWALK.
4. SIDEWALK WIDTH "D" SHALL BE 6 FEET MIN. ON ALL STREETS.
5. CONCRETE SHALL BE PER TOWN STANDARD 004, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
6. NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY THE TOWN INSPECTOR OR APPLICABLE ENGINEER OF RECORD.
7. CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES AT CONTROL JOINT.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SIDEWALK DETAIL

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

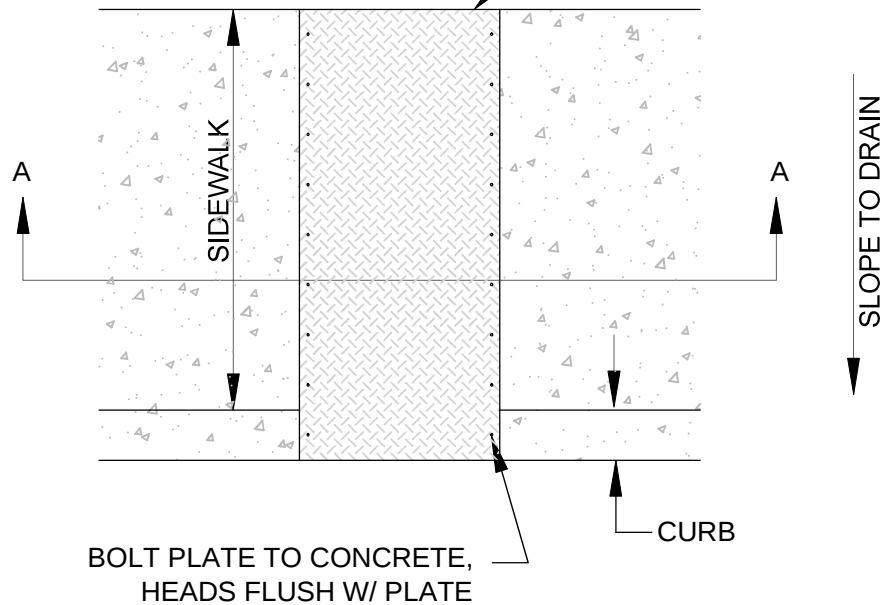
DATE: **May 7, 2014**

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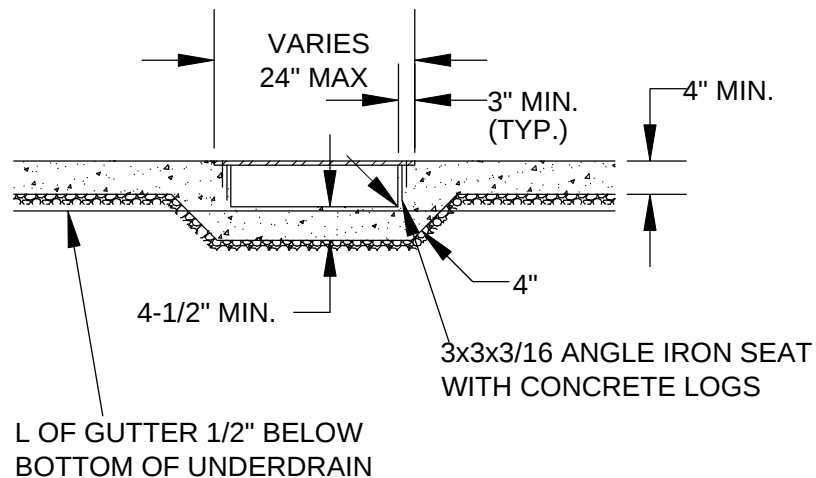
108-2

SHEET 1 OF 1

SOLID STEEL DIAMOND PLATE W/ NON-SKID PATTERN
12", 18", 24" WIDTH - 1/2" THICKNESS (MIN.)



SIDEWALK CROSS DRAIN



SECTION A-A

NOTES:

1. CONCRETE SHALL BE PER TOWN STANDARD 004, OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR
2. BASE BENEATH CONCRETE DRAIN SUPPORT STRUCTURE SHALL BE 6" MIN. TYPE 2, CLASS B AGGREGATE, COMPACTED TO A MINIMUM 95% OF MAXIMUM DRY DENSITY.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SIDEWALK CROSS DRAIN

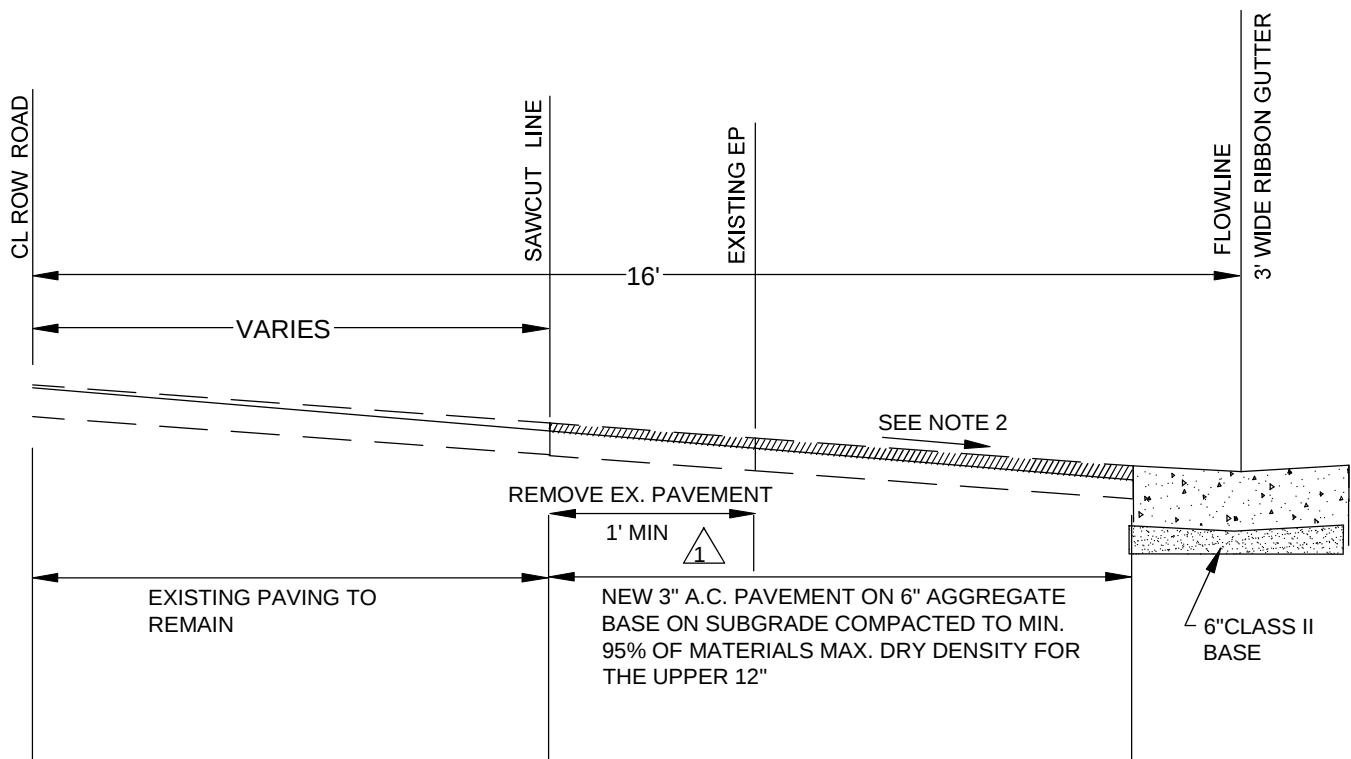
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DIRECTOR APPROVAL: *[Signature]*

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SHEET 1 OF 1



SAWCUT FOR ADDED PAVEMENT

NO SCALE

GENERAL NOTES FOR SAWCUT FOR ADDED PAVEMENT

1. SAW CUT SHALL BE MADE A MINIMUM OF 1 FOOT FROM EDGE OF EXISTING ASPHALT AND IN COMPETENT ASPHALT AS DETERMINED BY THE ENGINEER. LONGITUDINAL CUTS SHALL NOT BE ON A WHEEL ALIGNMENT AND IT IS PREFERABLE THAT THESE CUTS BE ON A LANE LINE.
2. MATCH SUPERELEVATION OF EXISTING ROAD OR AS DETERMINED BY ENGINEER.
3. 5-1/2" THICK ASPHALT FOR COLLECTORS, ARTERIALS, AND BUS ROUTES

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SAWCUT FOR ADDED PAVEMENT

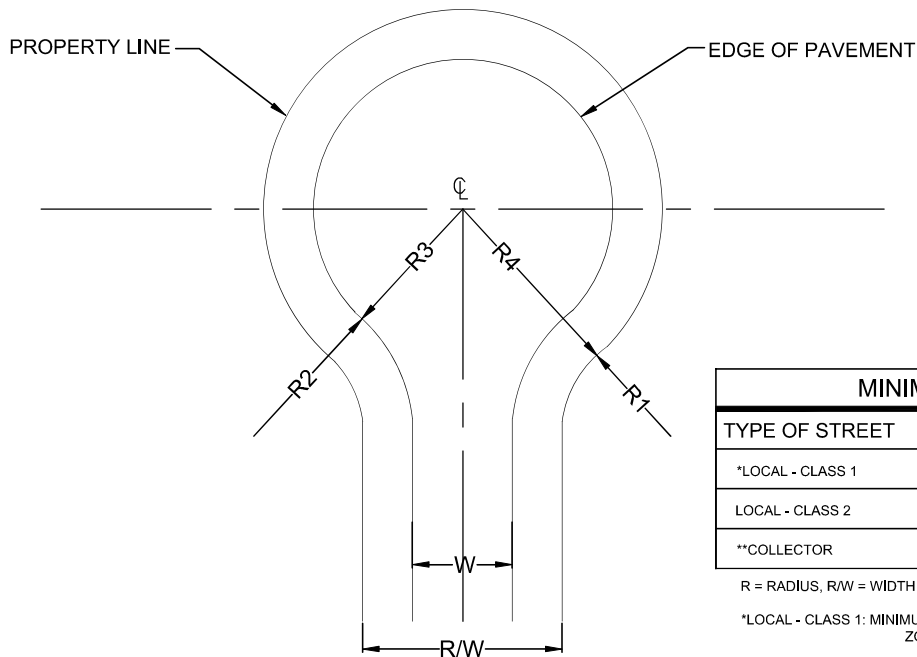
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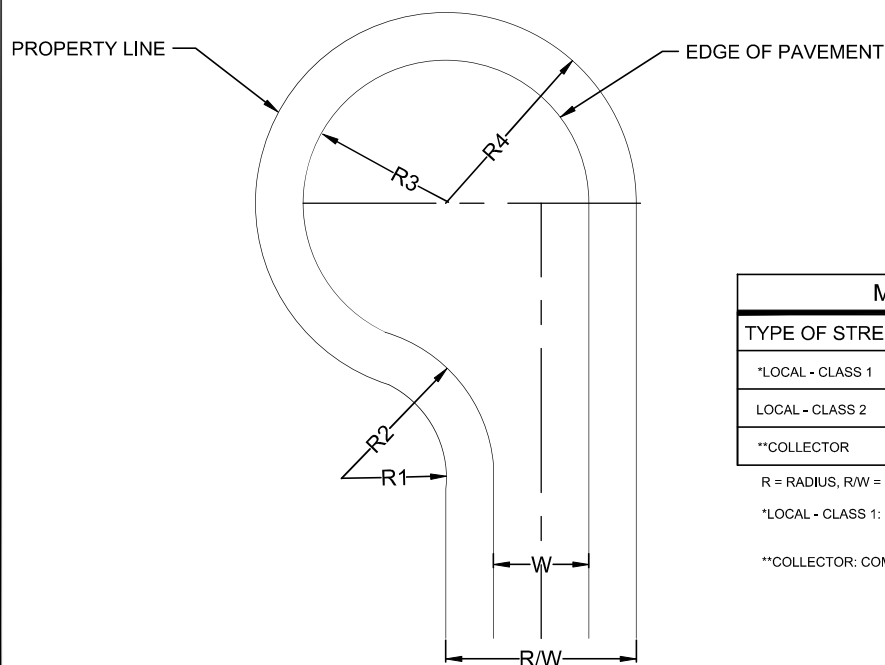
MINIMUM REQUIREMENTS						
TYPE OF STREET	R1	R2	R3	R4	R/W	W
*LOCAL - CLASS 1	33'	41'	35'	43'	40'	24'
LOCAL - CLASS 2	33'	48'	45'	60'	60'	30'
**COLLECTOR	44'	54'	50'	60'	60'	40'

R = RADIUS, R/W = WIDTH OF RIGHT-OF-WAY, W = WIDTH OF PAVEMENT

*LOCAL - CLASS 1: MINIMUM LOT SIZE = 15,000 SQ. FT.
ZONES = RR, RSF, OSSC, R

**COLLECTOR: COMMERCIAL AND INDUSTRIAL

STANDARD CUL-DE-SAC



MINIMUM REQUIREMENTS						
TYPE OF STREET	R1	R2	R3	R4	R/W	W
*LOCAL - CLASS 1	33'	41'	35'	43'	40'	24'
LOCAL - CLASS 2	33'	48'	45'	60'	60'	30'
**COLLECTOR	44'	54'	50'	60'	60'	40'

R = RADIUS, R/W = WIDTH OF RIGHT-OF-WAY, W = WIDTH OF PAVEMENT

*LOCAL - CLASS 1: MINIMUM LOT SIZE = 15,000 SQ. FT.
ZONES = RR, RSF, OSSC, R

**COLLECTOR: COMMERCIAL AND INDUSTRIAL

STANDARD OFFSET CUL-DE-SAC

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



CUL-DE-SACS

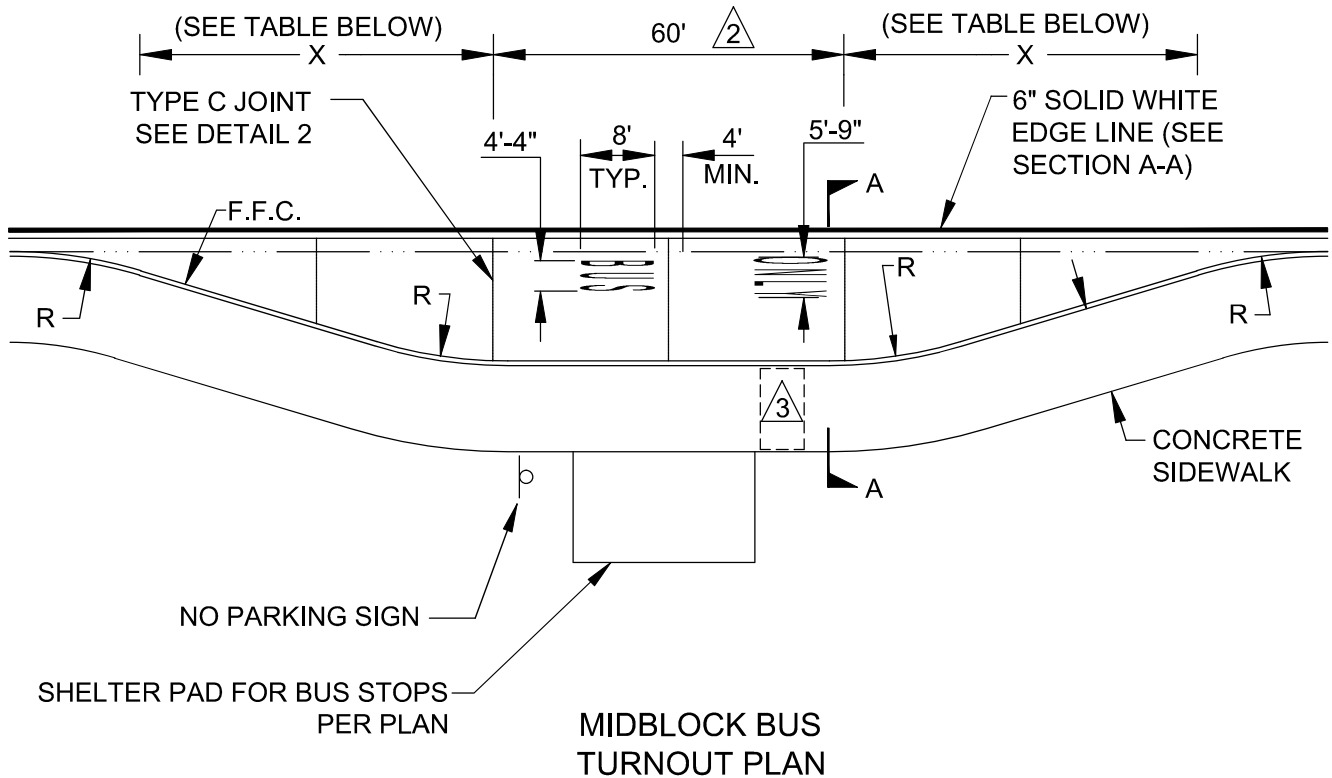
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DIRECTOR APPROVAL:

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SHEET 1 OF 1



NOTES:

1 R=50 FEET RADIUS (NOTE: A STRAIGHT LINE TAPER OF ADEQUATE LENGTH MAY BE SUBSTITUTED FOR "X" > 100 FEET).

2 THIS BERTH IS FOR A SINGLE 40 FOOT VEHICLE. TOWN STAFF SHALL BE CONTACTED TO DETERMINE IF MULTIPLE BERTHS WILL BE NEEDED. A MINIMUM OF 12 INCH CLEARANCE FOR THE BUS MIRROR IS REQUIRED BEHIND THE FACE OF CURB.

3 BUS STOP BOARDING AREA SHALL BE 60 INCHES MINIMUM PARALLEL TO THE ROADWAY, AND 96 INCHES MINIMUM PERPENDICULAR TO THE CURB OR ROADWAY EDGE. SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION. MINIMUM DIMENSIONS ARE SUBJECT TO OTHER TOWN REQUIREMENTS.

X=LENGTH OF TRANSITION PER POSTED SPEED LIMIT FROM CHART BELOW.

X	POSTED SPEED
40'	≤ 25 MPH
60'	30 to 35 MPH
80'	40 to 45 MPH
100'	> 45 MPH

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



BUS TURNOUT STANDARDS

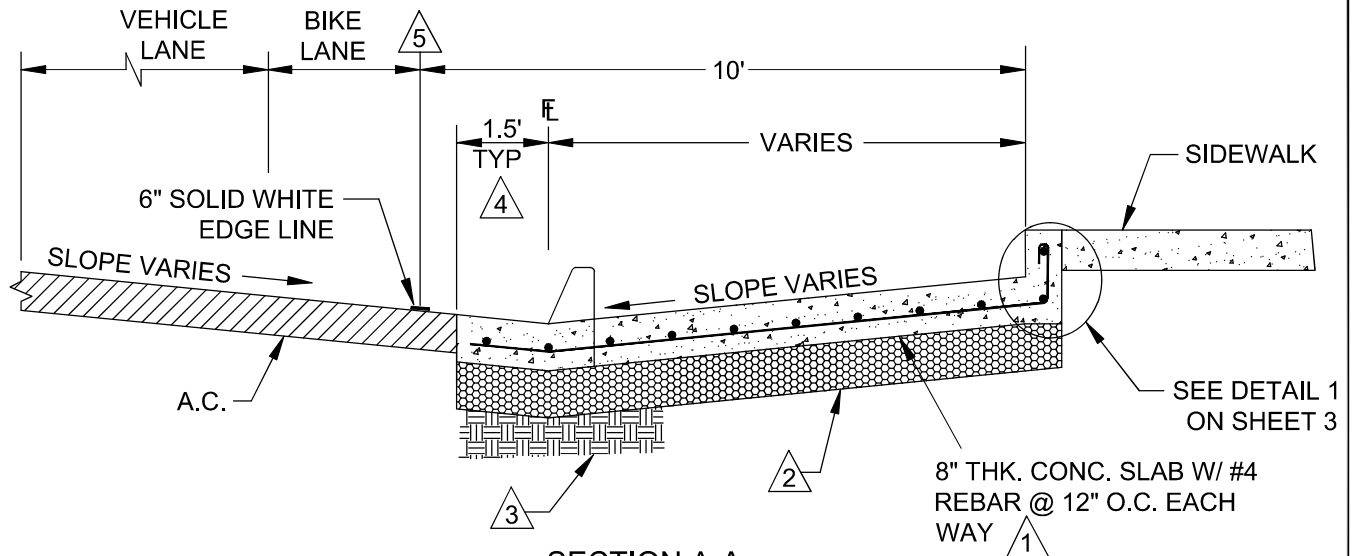
PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

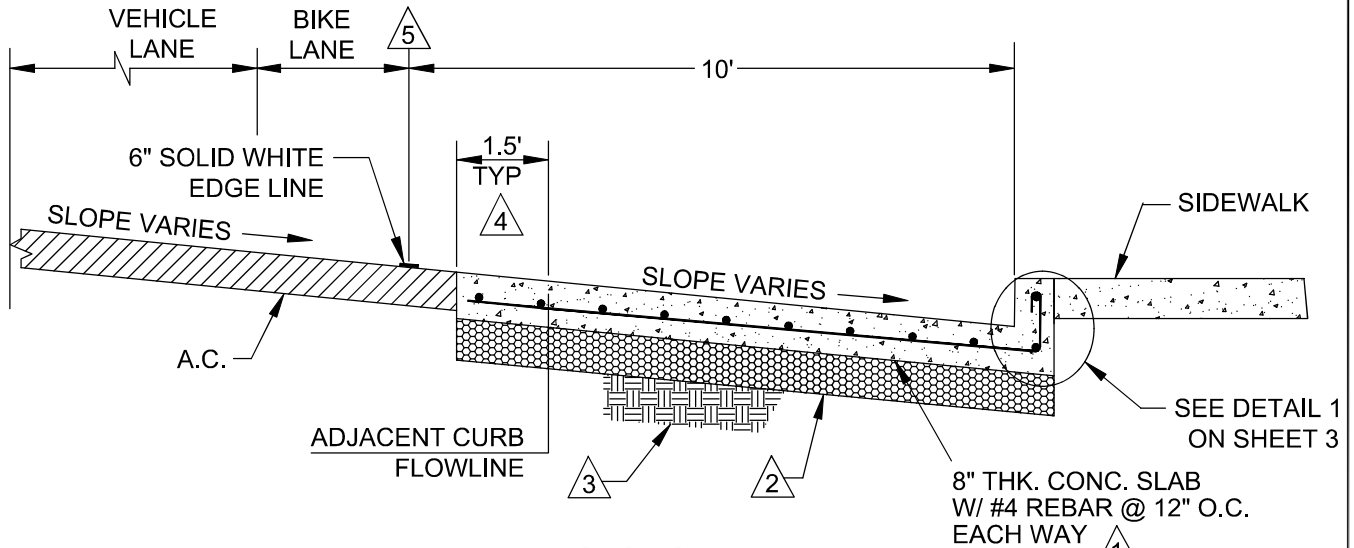
STANDARD PLAN

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SHEET 1 OF 3



SECTION A-A
STRUCTURAL SECTION OPTION 1



SECTION A-A
STRUCTURAL SECTION OPTION 2

NOTES:

- 1 CONCRETE SHALL BE PER TOWN STANDARD 004, OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR
- 2 BASE SHALL BE 6" MIN. TYPE 2, CLASS B AGGREGATE, COMPACTED TO A MINIMUM 95% DRY DENSITY
- 3 COMPACT SUBGRADE TO 95% RELATIVE COMPACTION
- 4 DIMENSION SHALL EQUAL WIDTH OF GUTTER FOR CURB ADJACENT TO BUS TURNOUT
- 5 WHERE NO BICYCLE LANE IS USED, 10' DIMENSION SHALL BE TO EDGE OF VEHICLE LANE

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



BUS TURNOUT STANDARDS

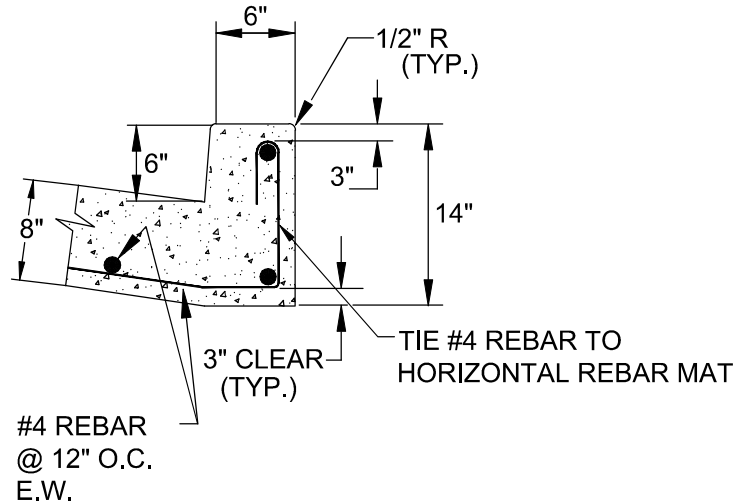
PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: May 7, 2014

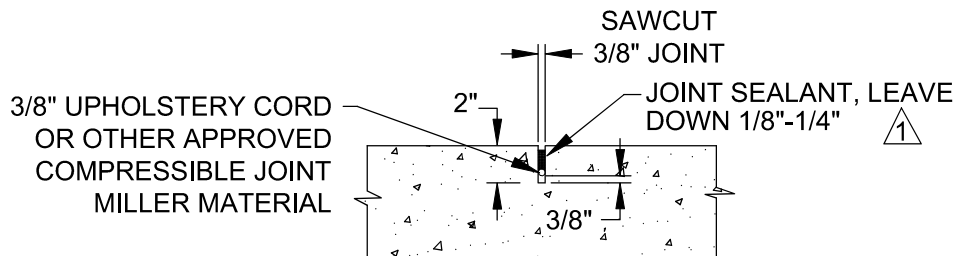
STANDARD PLAN

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SHEET 2 OF 3



DETAIL 1



TYPE C JOINT

DETAIL 2

NOTES:

- 1 TYPE C JOINT SEALERS SHALL BE HOT POURED SUPER SEAL 444 OR EQUAL.
- 2 CONCRETE SHALL BE PER TOWN STANDARD 004 OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
- 3 BASE BENEATH CONCRETE SHALL BE 6" MIN TYPE 2, CLASS B AGGREGATE, COMPACTED TO A MINIMUM 95% MAXIMUM DRY DENSITY

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



BUS TURNOUT STANDARDS

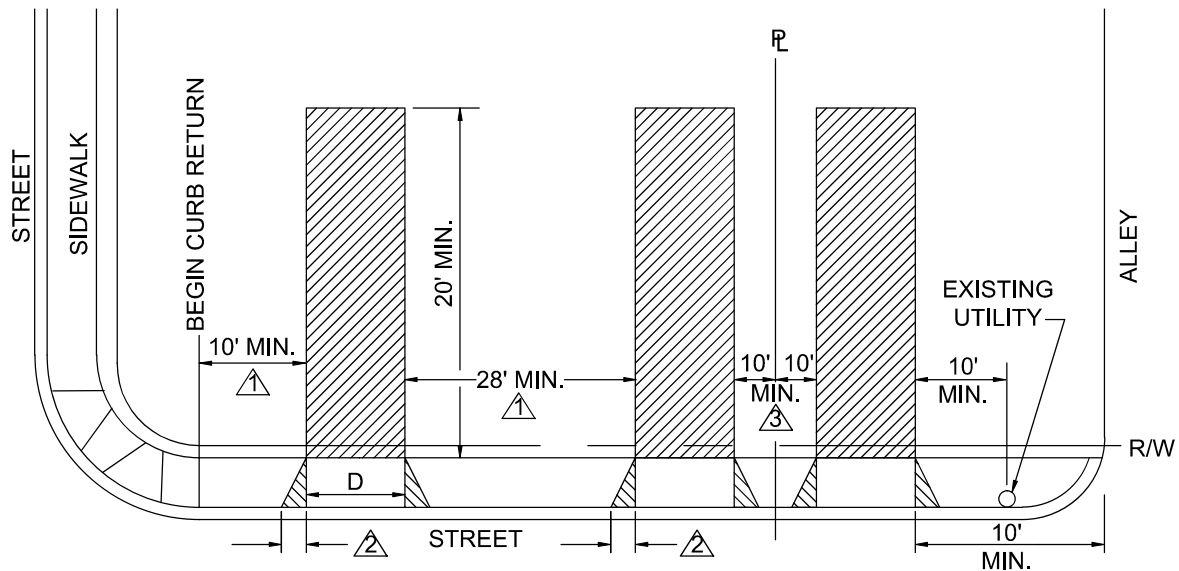
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STANDARD PLAN

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SHEET 3 OF 3



NOTES:

- ¹ LOCAL STREET - 50'
COLLECTOR/ARTERIALS - 150' }

² SEE TOWN STANDARD DETAIL DRAWING NO. 102 FOR TAPER LENGTH.

³ 10 FOOT MINIMUM SPACE NOT REQUIRED ON SHARED DRIVEWAYS. WHEN THIS DIMENSION BETWEEN ADJACENT DRIVEWAYS IS LESS THAN 10 FEET, SUCH AS WITH CUL-DE-SAC CONFIGURATIONS, THE CURB SHALL BE DEPRESSED BETWEEN THE DRIVEWAYS.

⁴ INCLUDES MULTI-RESIDENTIAL WITH 3 UNITS OR GREATER, OFFICE BUILDINGS, AND OTHER COMMERCIAL BUILDINGS.

6. ANY DEVIATION FROM THESE DIMENSIONS MUST BE SUBMITTED TO AND APPROVED BY THE PUBLIC WORKS DIRECTOR.

⁷ THE WIDTH OF THE DEPRESSED CURB SECTION OF THE DRIVEWAY IS TO MATCH THE WIDTH OF THE LARGEST GARAGE OPENING OR THE OPENING THAT FACES THE STREET.

8. WHENEVER POSSIBLE, DRIVEWAYS ARE TO CONNECT PERPENDICULAR TO THE STREET CENTERLINE. ON CUL-DE-SACS, CURVED STREETS, ETC., WHERE THIS REQUIREMENT MAY NOT BE POSSIBLE, ANY DIFFERENT DRIVEWAY INTERSECTION GEOMETRY WITH THE STREET SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR.

9. ADDITIONAL DRIVEWAY APRON WIDTH MAY BE ALLOWED TO THE PROPERTY LINE SIDE OF THE NORMAL DRIVEWAY LOCATION TO ACCOMMODATE LARGE VEHICLE ACCESS, ACCESS TO THE REAR OR SIDE YARD, ETC., AS APPROVED BY THE PUBLIC WORK DIRECTOR.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



DRIVEWAY GEOMETRICS

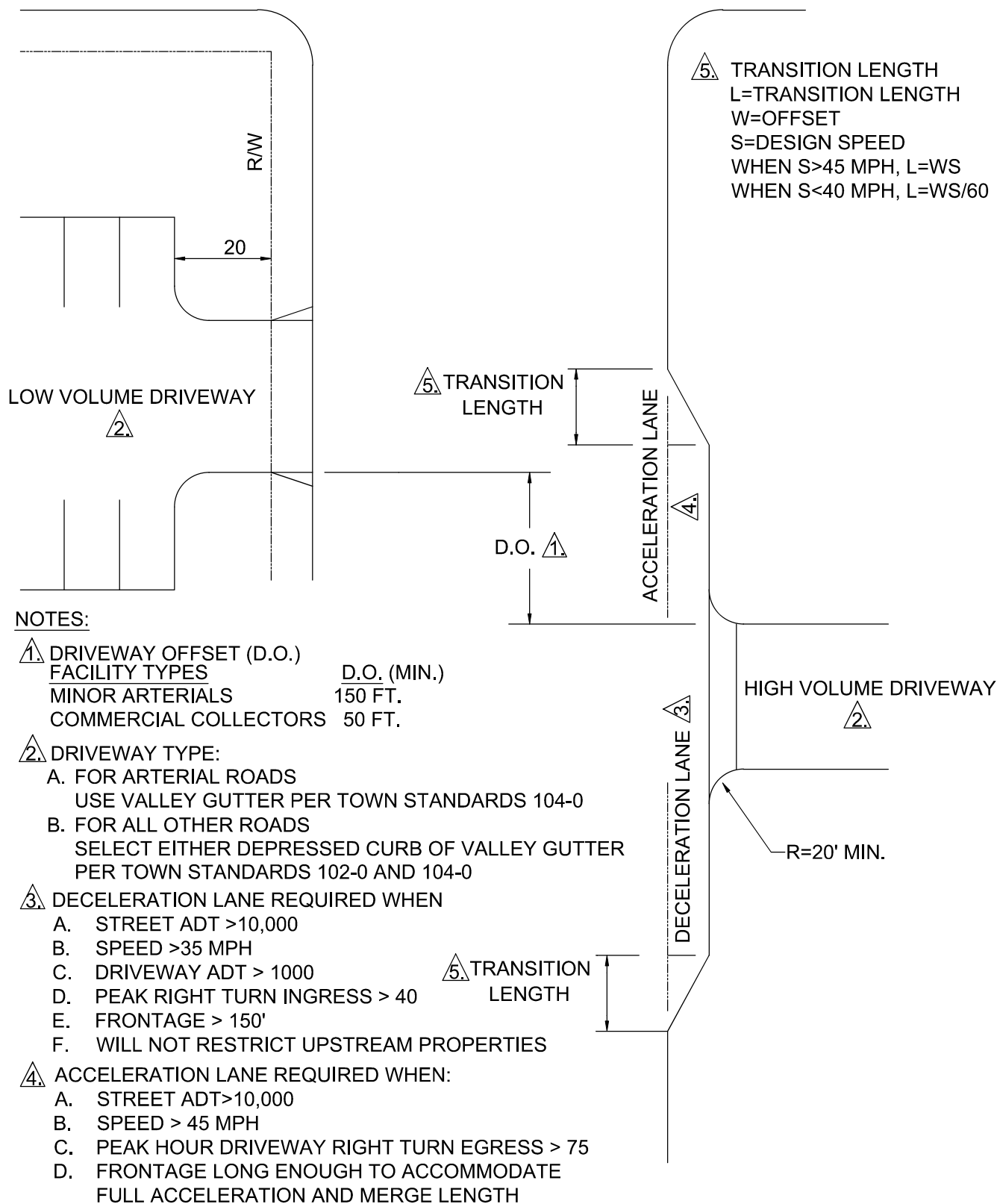
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TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



DRIVEWAY GEOMETRICS

PUBLIC WORKS
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SHEET 2 OF 5

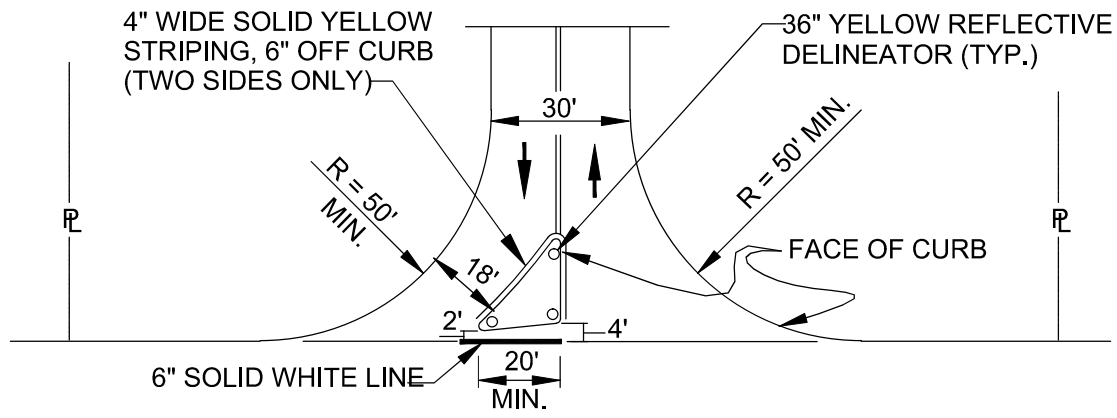


FIGURE A - DRIVEWAY CHANNELIZING ISLAND TO PREVENT LEFT-TURN EGRESS MANEUVERS

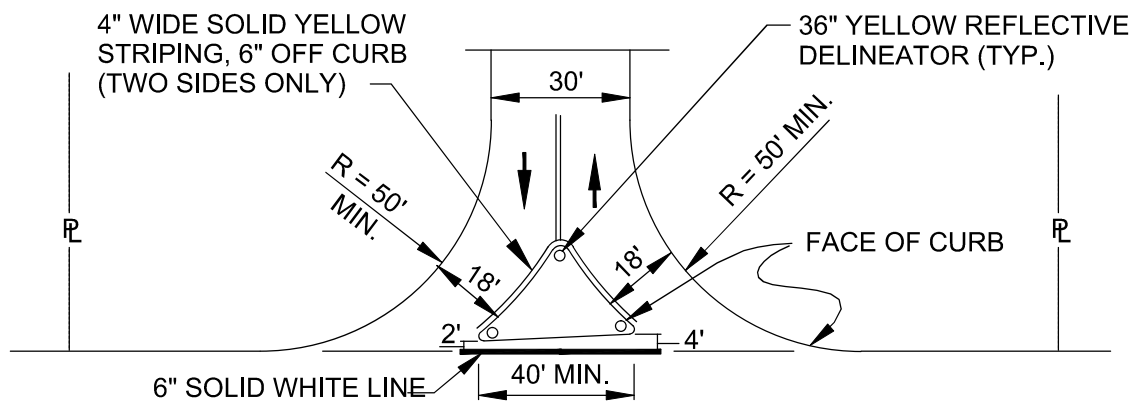


FIGURE B - DRIVEWAY CHANNELIZING ISLAND TO PREVENT LEFT-TURN EGRESS AND INGRESS MANEUVERS

NOTES:

1. PEDESTRIAN RAMPS MUST BE INSTALLED AT RETURNS AND ON ISLANDS, IF SIDEWALKS ARE PRESENT (SEE TOWN STANDARDS 103)
2. ISLANDS MUST BE RAISED AND OUTLINED BY CURBS AND FILLED WITH PAVEMENT. ISLAND NOT USED FOR PEDESTRIAN TRAFFIC MAY BE FILLED WITH LOW LEVEL, NO MAINTENANCE, DECORATIVE MATERIAL WITH THE PUBLIC WORKS DIRECTOR APPROVAL.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



DRIVEWAY GEOMETRICS

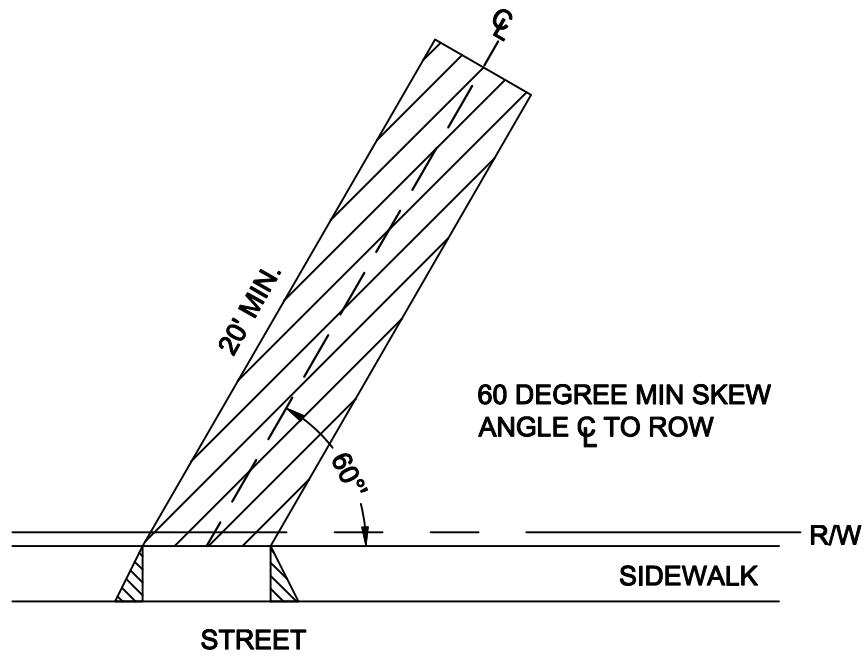
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NOTES:

1. MIN 60 DEGREE SKEW ANGLE FROM STREET.
2. DRIVEWAYS PARALLEL TO ROADWAYS ARE NOT ALLOWED.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



DRIVEWAY GEOMETRICS

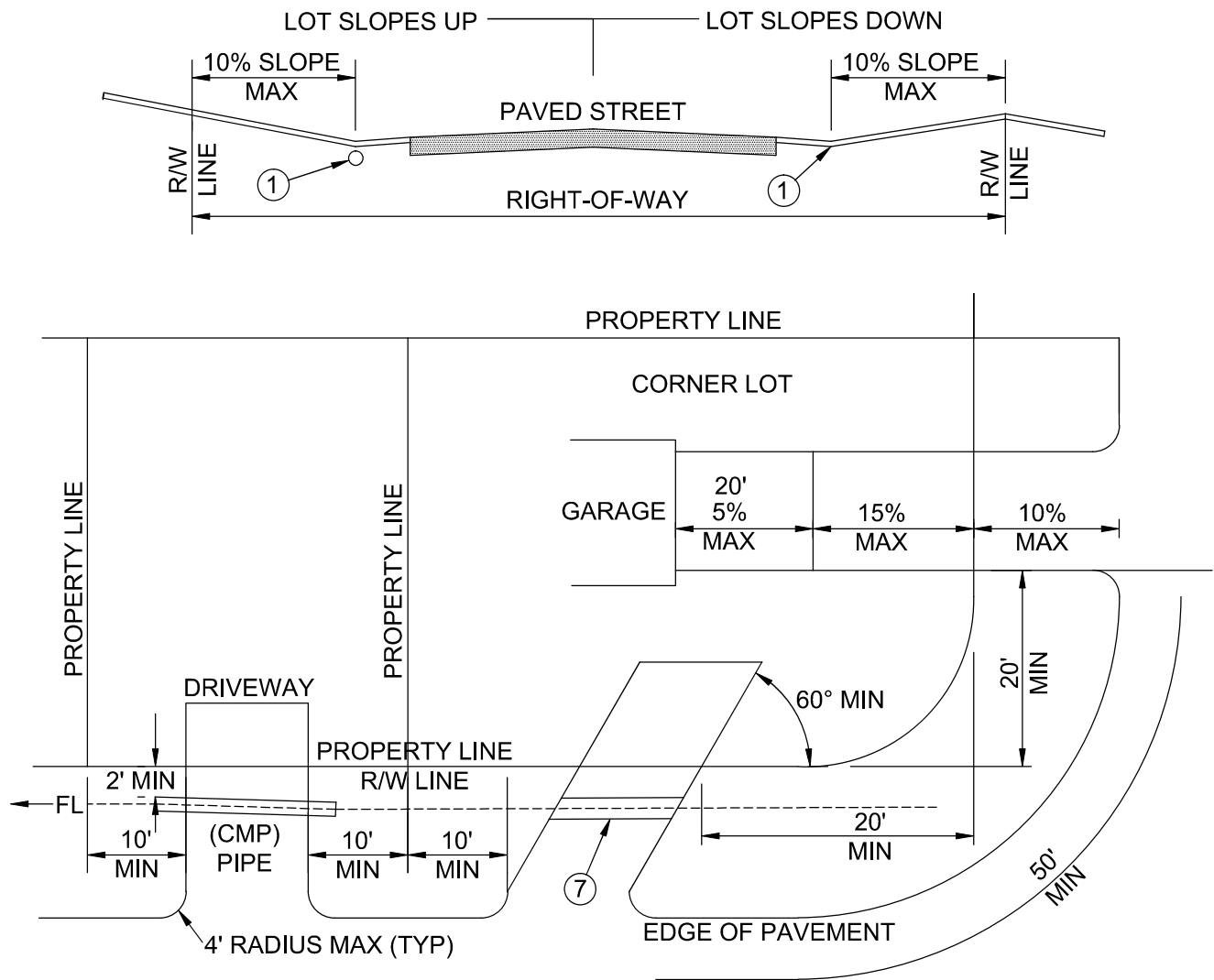
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NOTES:

- ①. PLACE CULVERT OR CROSS GUTTER, THROUGH DRIVEWAY AT FLOWLINE. CROSS GUTTER SHALL BE PER TOWN OF MAMMOTH LAKES STANDARD PLAN 104.
2. 50 FOOT MIN. SEPARATION BETWEEN DRIVEWAYS ALSO APPLIES TO LOTS WITH A TOTAL FRONTAGE OF 125 FOOT MIN
3. DRIVEWAY WIDTH TO BE 12 - 24 FEET RESIDENTIAL.
4. DRIVEWAYS WHICH RUN PARALLEL TO THE STREET SHALL MAINTAIN THE MIN SETBACK PER THE ZONING ORDINANCE
5. DRAINAGE PIPE SHALL HAVE FLARED ENDS SECTIONS OR OTHER APPROVED TREATMENTS THAT EXTEND AT LEAST 2' BEYOND DRIVEWAY
6. HORSESHOE DRIVEWAYS ARE NOT PERMITTED.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



DRIVEWAY GEOMETRICS

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

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STANDARD PLAN

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SHEET 5 OF 5

GENERAL NOTES AND SPECIFICATIONS FOR COMMERCIAL DRIVEWAY STANDARDS

1. CONCRETE SHALL BE PER TOWN STANDARD PLAN 004, OR AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
2. CONCRETE MAY BE REINFORCED WITH #4 REBAR PLACED 12 INCHES ON CENTER EACH WAY AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
3. SUBGRADE SHALL BE AT OPTIMUM MOISTURE AND COMPACTED TO A MIN. OF 95% RELATIVE COMPACTION.
4. BASE AND FORMS TO BE WATERED BEFORE PLACING CONCRETE.
5. CROSS GUTTER SHALL BE SCREEDED TO FORMS AND BROOMED FINISHED PARALLEL TO FLOWLINE.
6. CONCRETE SHALL BE CURED WITH IMMEDIATE APPLICATION OF A CURING COMPOUND.
7. DRIVEWAY WIDTH TO BE 24 TO 30 FEET FOR COMMERCIAL/INDUSTRIAL. COMMERCIAL DRIVEWAY MAY BE UP TO 40' WIDE TO ACCOMMODATE LARGER TRAFFIC VOLUMES AND DEDICATED LEFT TURN LANES.
8. ALL DRIVEWAY AND PARKING AREAS ARE TO BE PAVED.
9. NO REQUIRED PARKING IS TO BE PERMITTED IN THE RIGHT-OF-WAY.
10. DRIVEWAYS WHICH RUN PARALLEL TO THE STREET SHALL MAINTAIN THE MIN. SETBACK PER THE ZONING ORDINANCE.
11. DRIVEWAY APPROACH CONSTRUCTION SHALL NOT CAUSE FILLING OR CUTTING IN THE RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT.
12. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE ON DRIVEWAY APPROACHES AND ANY INSTALLED CULVERTS.
13. SNOW REMOVED FROM DRIVEWAY SHALL NOT BE PLACED IN RIGHT-OF-WAY.
14. PLANS SUBMITTED FOR THE PURPOSE OF OBTAINING A BUILDING OR ENCROACHMENT PERMIT SHALL INCLUDE A PLAN VIEW AND DRIVEWAY SLOPE PROFILE TO VERIFY COMPLIANCE WITH THE MIN. DRIVEWAY STANDARDS.
15. WHERE STORM DRAIN FACILITIES ARE IN THE STREET, AN INLET SHALL BE INSTALLED UPHILL FROM THE DRIVEWAY
16. THE PUBLIC WORKS DEPARTMENT RECOMMENDS THAT DRIVEWAY ENTRANCES BE IDENTIFIED FOR SNOW REMOVAL OPERATIONS WITH RED REFLECTORS OR SNOW POLES WHICH SHALL BE PLACED A MIN. OF 2 FEET TO THE PROPERTY SIDE OF THE TOWN SNOW POLE LINE.
17. AN ENCROACHMENT PERMIT IS REQUIRED FOR ALL WORK PERFORMED IN THE PUBLIC RIGHT-OF-WAY.
18. THE TOWN PUBLIC WORKS DEPARTMENT MUST BE NOTIFIED A MIN. OF 24 HOURS PRIOR TO STARTING WORK AND FOR ANY INSPECTIONS.
19. ADDITIONAL EASEMENTS FOR SIDEWALKS MAY BE REQUIRED WHERE THEY ARE REQUIRED DUE TO SLOPES OR OTHER TOPOGRAPHICAL FEATURES.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



COMMERCIAL DRIVEWAY STANDARDS

PUBLIC WORKS
DIRECTOR APPROVAL: 

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SHEET 1 OF 3

COMMERCIAL DRIVEWAY STANDARDS

THE FOLLOWING SHALL BE CONSIDERED MINIMUM STANDARDS FOR NEW COMMERCIAL DRIVEWAYS.

PLANS SUBMITTED FOR THE PURPOSE OF OBTAINING A BUILDING PERMIT OR, ENCROACHMENT PERMIT SHALL INCLUDE A PLAN VIEW AND DRIVEWAY SLOPE PROFILE TO VERIFY COMPLIANCE WITH THE MINIMUM DRIVEWAY STANDARDS

1. ONLY ONE DRIVEWAY ENTRANCE/EXIT SHALL BE PERMITTED TO SERVE EACH PARCEL. (EXCEPTION: CORNER LOTS WITH A TOTAL FRONTAGE EXCEEDING 125 FEET MAY HAVE TWO ENTRANCES/EXITS, PROVIDED THERE IS A MINIMUM SEPARATION OF 50 FEET BETWEEN DRIVEWAYS OR STREET INTERSECTIONS.)
2. THE ANGLE OF THE DRIVEWAY TO THE ROAD/STREET SHALL BE NOT LESS THAN 60 DEGREES WHEN WITHIN THE REQUIRED SETBACK AND THE PUBLIC RIGHT-OF-WAY.
3. DRIVEWAY ENCROACHMENTS WITHIN THE TOWN RIGHT-OF-WAY SHALL BE PER "COMMERCIAL APPROACH STANDARDS" SECTION 115-0.
4. THE MAXIMUM GRADE (SLOPE) IF THE DRIVEWAY WITHIN THE TOWN RIGHT-OF-WAY SHALL NOT EXCEED 10% (ONE FOOT VERTICAL PER 10 FEET HORIZONTAL).
5. MAXIMUM GRADE (SLOPE) OF PARKING AREAS SHALL NOT EXCEED 5% (ONE FOOT VERTICAL IN TWENTY FEET HORIZONTAL).
6. ALL OTHER AREAS OF THE DRIVEWAY SHALL NOT EXCEED 15%. (THE PUBLIC WORKS DEPARTMENT RECOMMENDS THAT DRIVEWAY SLOPES NOT EXCEED 10%).
7. MODIFICATIONS OR DEVIATIONS OF THESE STANDARDS ARE SUBJECT TO APPROVAL BY THE PUBLIC WORKS DIRECTOR.

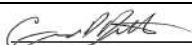
COMMERCIAL DRIVEWAY STANDARDS-MODIFICATION PROCEDURES

1. MODIFICATIONS TO THE DRIVEWAY STANDARDS WITHIN THE PUBLIC RIGHT-OF-WAY, MAY BE CONSIDERED PROVIDING THE FOLLOWING FINDINGS CAN BE MADE:
2. THERE ARE EXCEPTIONAL OR EXTRAORDINARY CIRCUMSTANCES APPLICABLE TO THE PROPERTY INVOLVED WHICH DO NOT APPLY GENERALLY TO OTHER PROPERTIES.
3. A STANDARD DRIVEWAY WOULD CAUSE A SAFETY HAZARD.
4. WRITTEN REQUESTS FOR MODIFICATION TO THESE STANDARDS WILL BE REVIEWED AND A DECISION RENDERED BY THE PUBLIC WORKS DIRECTOR WITHIN TEN WORKING DAYS OF RECEIPT OF WRITTEN REQUEST FROM THE PROPERTY OWNER.
5. DECISIONS MAY BE APPEALED TO THE TOWN PLANNING COMMISSION PROVIDED THE APPEAL IS RECEIVED BY THE TOWN PLANNING DIRECTOR IN WRITING WITHIN 10 WORKING DAYS OF THE DECISION. THE APPEAL WILL BE SCHEDULED AT THE NEXT AVAILABLE PLANNING COMMISSION MEETING, APPLICANT SHALL BE RESPONSIBLE FOR ANY APPLICABLE APPEAL FEES.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



COMMERCIAL DRIVEWAY STANDARDS

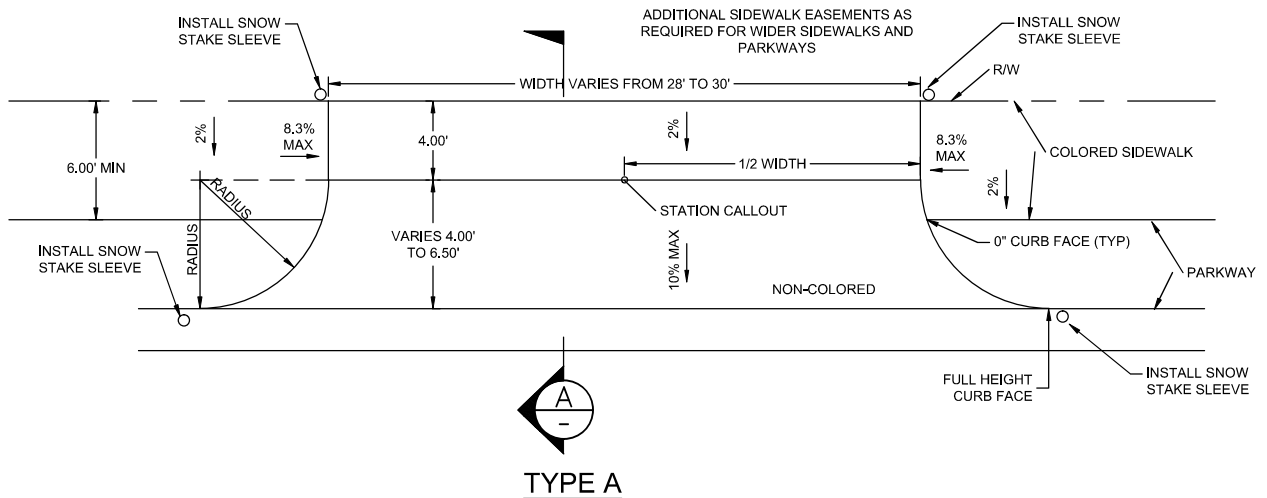
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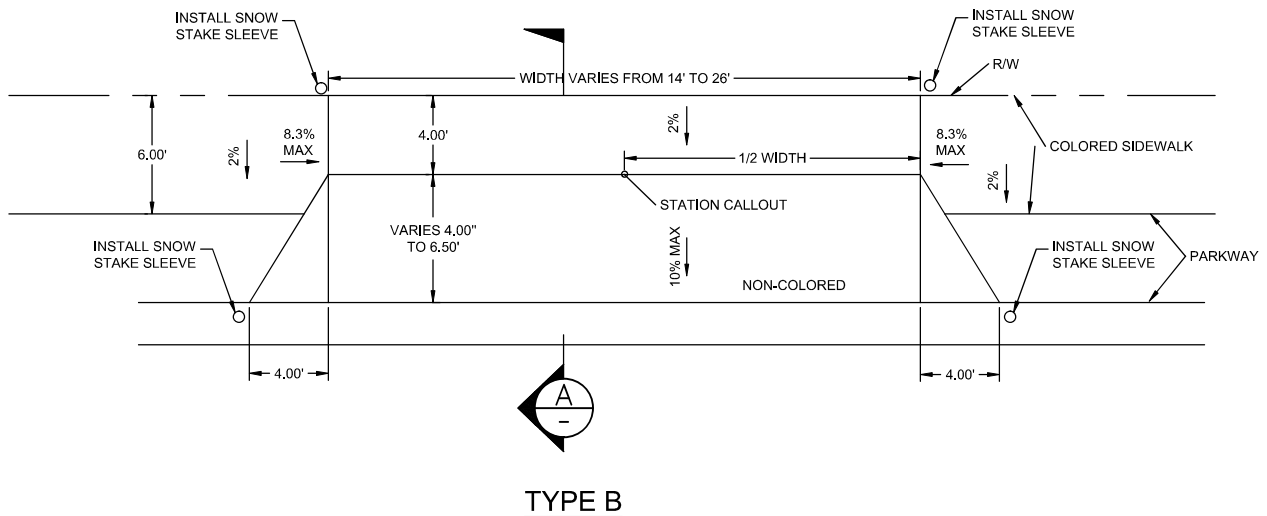
115-1

SHEET 2 OF 3



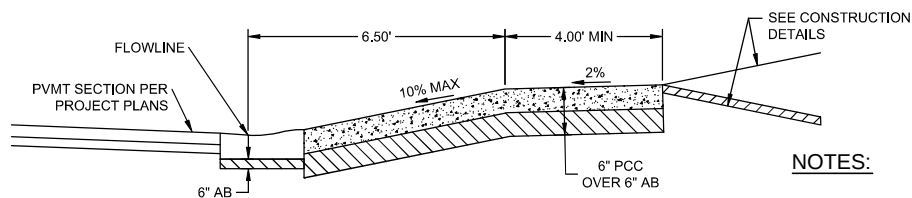
COMMERCIAL DRIVEWAY DETAILS

NO SCALE



LIGHT COMMERCIAL/RESIDENTIAL DRIVEWAY APPROACH STANDARDS

NO SCALE



NO SCALE

NOTES:

1. COMMERCIAL DRIVEWAYS WITH TWO-WAY TRAFFIC SHALL BE A MINIMUM OF 24' WIDE.
2. COMMERCIAL DRIVEWAYS MAY BE INCREASED TO PROVIDE UP TO THREE LANES OF TRAFFIC. ONE ENTRANCE LANE AND TWO EXIT LANES FOR LARGE COMMERCIAL PROJECTS AND AS APPROVED BY THE TOWN.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



COMMERCIAL DRIVEWAY STANDARDS

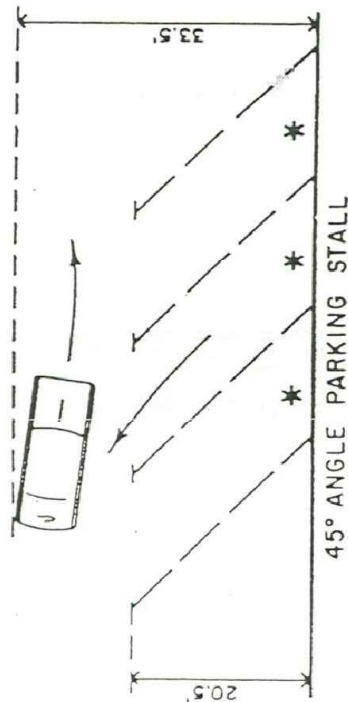
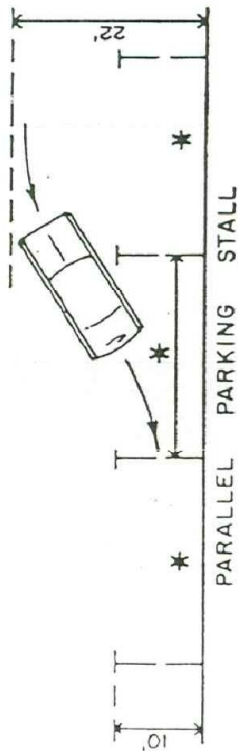
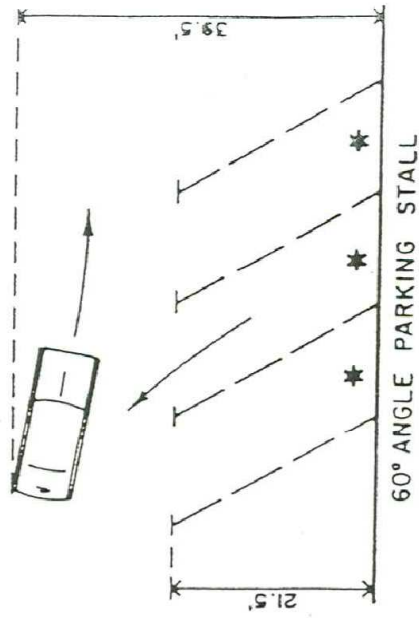
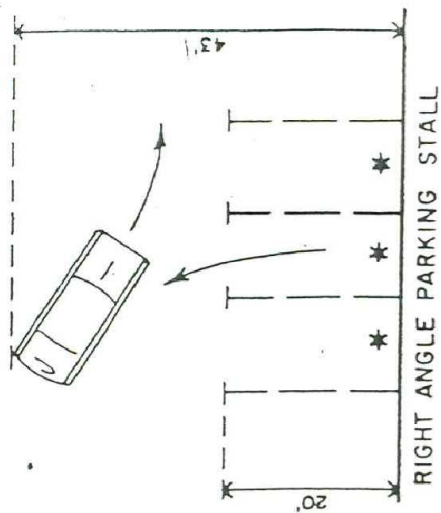
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STANDARD PLAN

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SHEET 3 OF 3



10' WIDTH STALL

Angle of Parking of Curb	Width of Street Used When Parked	Width Needed For Parking Plus Maneuvering	Length of Curb Per Car *	Cars Parked Per 100 foot
Parallel	10.0	22.0	23.0	4.3
45° Degrees	20.5	33.5	14.1	7.1
60° Degrees	21.5	39.5	11.5	8.7
90° Degrees	19.0	43.0	10.0	10.0

Source: "Traffic Engineering Handbook" - Third Edition - Chapter XII - Page 477

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



PARKING DESIGN STANDARDS

PUBLIC WORKS
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**TOWN OF MAMMOTH LAKES
GARAGE &/OR TANDEM PARKING STANDARDS**

GENERAL SPECIFICATIONS

- TANDEM PARKING STALLS ARE PERMITTED IN PUBLIC GARAGES AND PUBLIC PARKING AREAS THAT PROVIDE A VALET PARKING ATTENDANT. (AN AGREEMENT BETWEEN THE TOWN AND PROPERTY OWNER TO PROVIDE THE ATTENDANT SERVICES IS REQUIRED)
- TANDEM STALLS ARE PERMITTED IN PRIVATE PARKING GARAGES AND ASSIGNED PRIVATE PARKING AREAS SERVING: APARTMENT HOUSES, HOTELS, MULTIPLE GROUP DWELLINGS, AND SIMILAR MULTI-UNIT DEVELOPMENTS
- AT LEAST ONE PARKING STALL PER DWELLING UNIT OR DEFINED DWELLING UNIT (E.G. LOCKOFFS) AND ALL STALLS REQUIRED FOR ANY GUEST PARKING SHALL BE INDIVIDUALLY AND EASILY ACCESSIBLE. AT LEAST ONE-THIRD OF THE PARKING STALLS SHALL BE ONE CAR IN DEPTH AND NON-TANDEM IN COMMERCIAL AND VALET PARKED FACILITIES. RESIDENTIAL APARTMENTS WITH ASSIGNED PARKING MAY HAVE ALL REQUIRED PARKING TANDEM. ALL GUEST PARKING SHALL BE NON-TANDEM.
- TANDEM PARKING STALLS ARE LIMITED TO A MAXIMUM OF TWO CAR IN DEPTH AND MAY NOT BE OTHERWISE BLOCKED EXCEPT FOR TANDEM GARAGE SPACES IN THE SINGLE FAMILY RESIDENTIAL AND TOWN HOME DEVELOPMENTS WHERE A THIRD PARKING MAY BE IN THE DRIVEWAY.
- THE SAME STANDARD STALL WIDTHS USED FOR SINGLE SPACES ARE USED FOR TANDEM STALLS. (THE STANDARD FOR THE TOWN IS 9'X18' FOR ENCLOSED SPACES AND 10'X20' FOR OUTDOOR SURFACE PARKING STALLS)
- TANDEM STALLS MAY BE ALIGNED AT THE SAME ANGLES USED TO ALIGN SINGLE STALLS.
- END PARKING STALLS THAT ARE ENCLOSED OR WHERE OTHERWISE OBSTRUCTED REQUIRE AN INCREASE OF 3 FEET IN STALL WIDTH AS SHOWN BELOW. THE INCREASE IN STALL WIDTH IS REQUIRED UNLESS THE AISLE EXTENDS THREE FEET BEYOND THE END OF THE STALL OR A MINIMUM 32 FOOT ACCESS DRIVE AISLE IS PROVIDED. FIGURE 1 ILLUSTRATES END CONDITIONS FOR PARKING STALLS.
- DOUBLE LOADED MEANS PARKING ON BOTH SIDES OF THE DRIVEWAY ACCESS AISLE. SINGLE LOADED MEANS PARKING ON ONE SIDE OF THE DRIVEWAY ACCESS AISLE.
- LARGE PROJECTS SHALL PROVIDE SPACES FOR OVERSIZED VEHICLES AND TRUCKS. SPACES MAY BE INSIDE OR OUTSIDE OF A PARKING GARAGE

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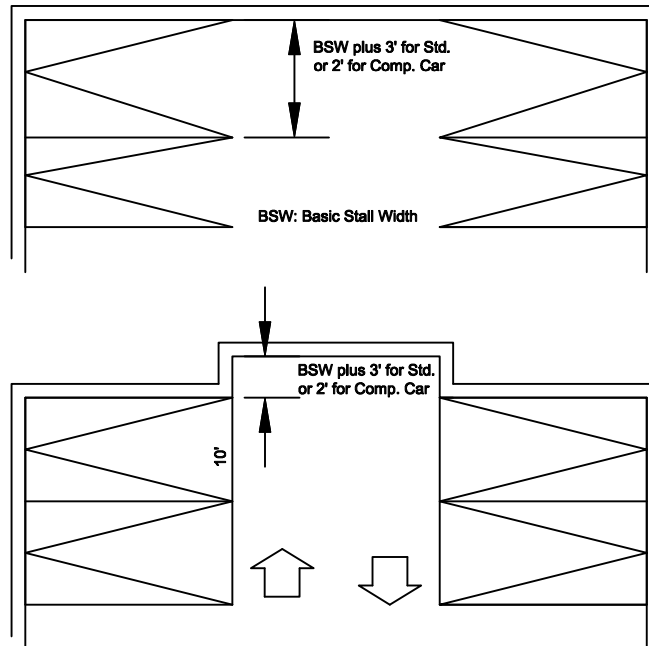


Figure 1 - End Condition for Parking Stalls

- ALL COMMERCIAL AND MULTI-UNIT GARAGES SHALL HAVE AN UNOBSTRUCTED HEADROOM CLEARANCE OF NOT LESS THAN 9 FEET ABOVE THE FINISHED FLOOR TO ANY CEILING, BEAM, PIPE OR OBSTRUCTION. SINGLE FAMILY AND TOWN HOME RESIDENTIAL UNITS SHALL HAVE A MINIMUM CLEARANCE HEIGHT OF 9 FEET. FOR MULTI-UNIT GARAGES AND SINGLE FAMILY AND TOWN HOME RESIDENTIAL UNITS WHERE TRANSITION SLOPES ARE REQUIRED UNOBSTRUCTED HEADROOM SHALL BE INCREASED AS SHOWN IN **FIGURE 2**. EACH PROJECT SHALL BE EVALUATED FOR HIGHER CLEARANCE NEEDS DUE TO HIGHER VEHICLE TYPES AND SERVICE VEHICLE PARKING REQUIREMENTS.

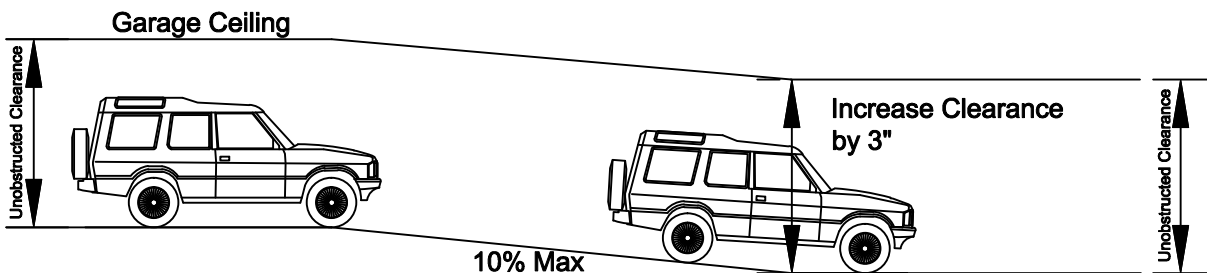


Figure 2 - Unobstructed Headroom for Transitional Slopes

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- A MAXIMUM GRADE OF 10% IS ALLOWED FOR ALL PARKING STRUCTURE ENTRANCE, EXIT AND INTERIOR RAMPS. ALL COMMERCIAL AND MULTI-FAMILY DRIVE AISLES THAT ARE EXPOSED TO SNOW OR ICE THAT EXCEED A 6 PERCENT SLOPE SHALL INCLUDE MEASURES FOR SNOW AND ICE MELT. A MAXIMUM RAMP SLOPE OF 5% IS ALLOWED FOR PARKING STALLS PLACED IN ANY DIRECTION ON THE RAMP. STALLS THAT ARE ADA ACCESSIBLE SHALL HAVE A MAXIMUM SLOPE OF 2 PERCENT IN ANY DIRECTION.
- TRANSITION SLOPES ARE REQUIRED WHEN THE SLOPE DIFFERENCE BETWEEN TWO SLABS IS GREATER THAN 10%. THIS TRANSITION AREA SHALL BE ONE HALF OF THE DIFFERENTIAL SLOPE. THE LENGTH OF THE TRANSITION SHALL BE BETWEEN 10 AND 12 FEET AS SHOWN IN **FIGURE 3**.

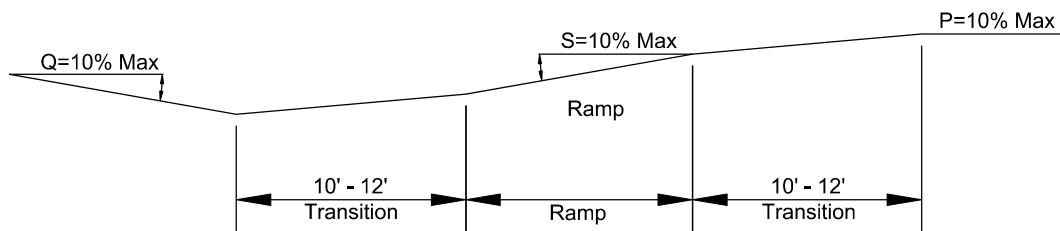


Figure 3 - Ramp Transitions

If Q = -2% and S = 8% the
Transition $(-2 + 8)/2 = 3\%$
If S = 10% and P = 0% The
Transition $= (10 + 0)/2 = 5\%$

Transition slope equals one
half the slope differential.

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AISLE WIDTHS

- ACCESS AISLE WIDTHS FOR TANDEM PARKING ARE THE SAME AS FOR STANDARD STALLS. DRIVE AISLES SHALL BE A MINIMUM OF 24 FEET WIDE FOR TWO-WAY TRAFFIC. ONE-WAY DRIVE AISLES MAY BE REDUCED BASED ON A REQUIRED BAY WIDTH (WIDTH INCLUDES AISLE AND STALLS) AS SHOWN IN **TABLE A** AS APPROVED BY THE FIRE MARSHALL

Table A	
Bay Width One-Way Traffic, Double Loaded Aisles	
Angle	9' Stall Width
30	43'-0"
45	48'-7"
90	61'-4"
Bay Width One-Way Traffic, Single Loaded Aisles	
30	27'-6"
45	30'-3"
90	43'-4"
Bay Width Two-Way Traffic, Double Loaded Aisles	
30	51'-2"
45	56'-4"
90	61'-4"
Bay Width Two-Way Traffic, Single Loaded Aisles	
30	35'-6"
45	38'-4"
90	43'-4"

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- FOR MULTIPLE PARKING BAYS WHERE THE BAYS OVERLAP AND INTERLOCKS THE NET BAY WIDTHS MAY BE DETERMINED BY THE RELATIONSHIPS SHOWN AS FOLLOWS:

- PARKING LOT WIDTH FOR OVERLAPPING, INTERLOCKING BAY WIDTHS, M (SEE **FIGURE 4**).
- COMPUTE PARKING BAY OVERLAP WIDTH, $Q = W \cos A$ THEN DETERMINE REQUIRED PARKING AREA WIDTH AS FOLLOWS:

- FOR 2 INTERLOCKING BAYS, BOTH DOUBLE LOADED: LOT WIDTH = $2B - Q$,
WHERE B = WIDTH OF SINGLE LOADED BAY
- FOR DOUBLE AND SINGLE LOADED: LOT WIDTH = $B + B + Q$
- FOR MULTIPLE BAYS, ALL DOUBLE LOADED: LOT WIDTH = $R(B - Q) + Q$,
WHERE R = NUMBER OF BAYS
- ONE SINGLE LOADED END BAY: LOT WIDTH = $R(B - Q) - B$
- BOTH END BAYS SINGLE LOADED: LOT WIDTH = $R(B - Q) + B$

c) SUPPLEMENTARY DIMENSIONS:

- FOR ANGLE A, PARKING STALL DEPTH, $P = S \sin A + Q$
- DRIVEWAY AISLE WIDTH, D:
 - DOUBLE LOADED BAYS, $D = B - 2P$
 - SINGLE LOADED BAYS, $D = B - P$

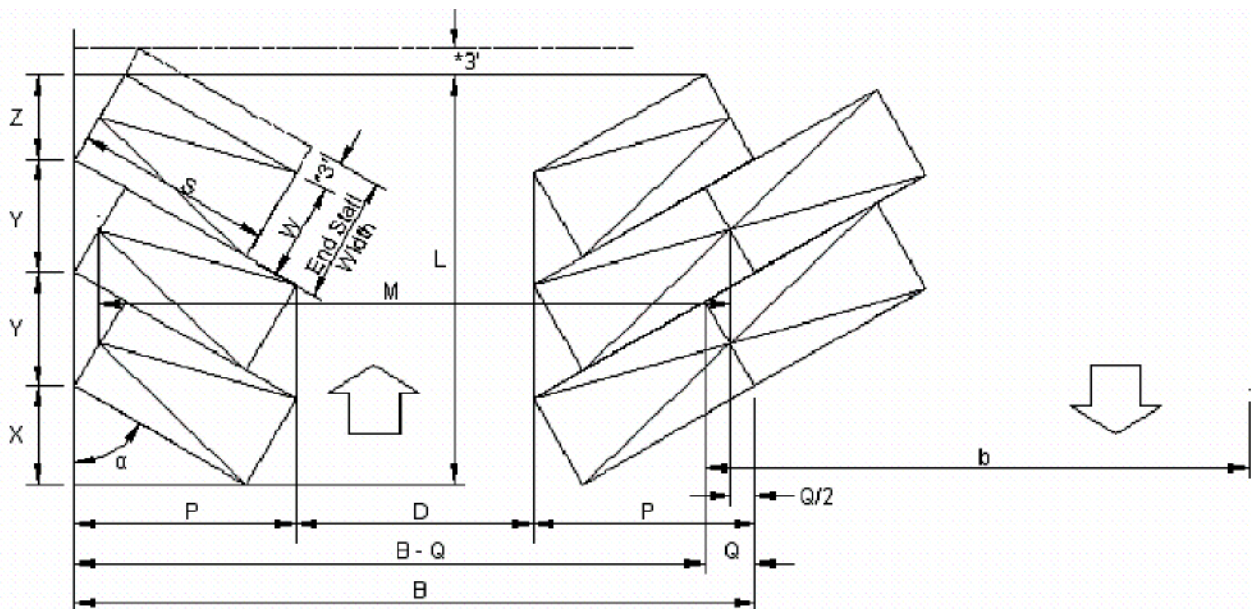


Figure 4 – Access Aisle Widths

END CELLS FOR 82.5° TO 90° PARKING
SHELL BE 3'-0" WIDER, OR THE ACCESS
SIDE SHELL EXTEND 6' MINIMUM
BEYOND BAY ($L + 3'$)

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- A MINIMUM AISLE REQUIREMENT IS GIVEN FOR STALLS WITH OBSTRUCTIONS AS SHOWN IN FIGURES 5 & 6

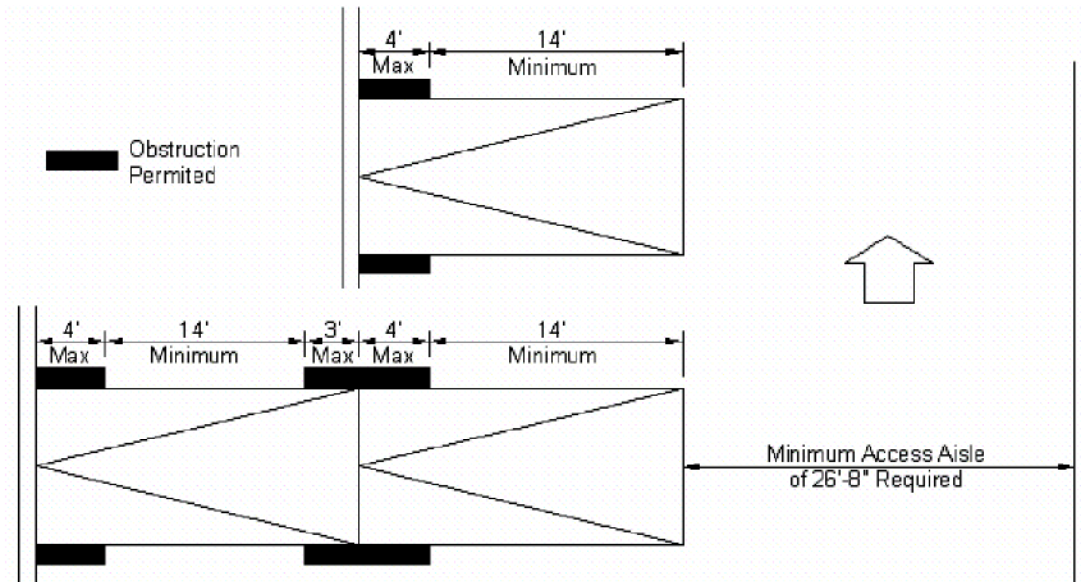


Figure 5 – Access Aisle Widths with Obstructions

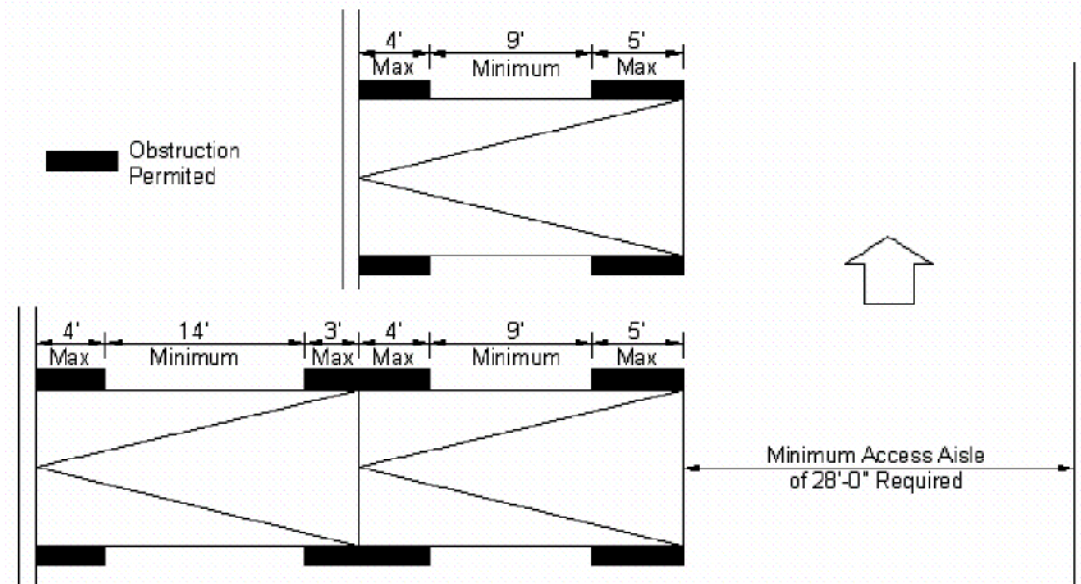


Figure 6 – Access Aisle Widths with Obstructions

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TURNING AREAS

- 90° TURNS USE A 20' INSIDE RADIUS. ONE-WAY TRAFFIC USES A WIDTH OF 21'7" WITH 10' OF CLEARANCE AS SHOWN IN FIGURE 7.

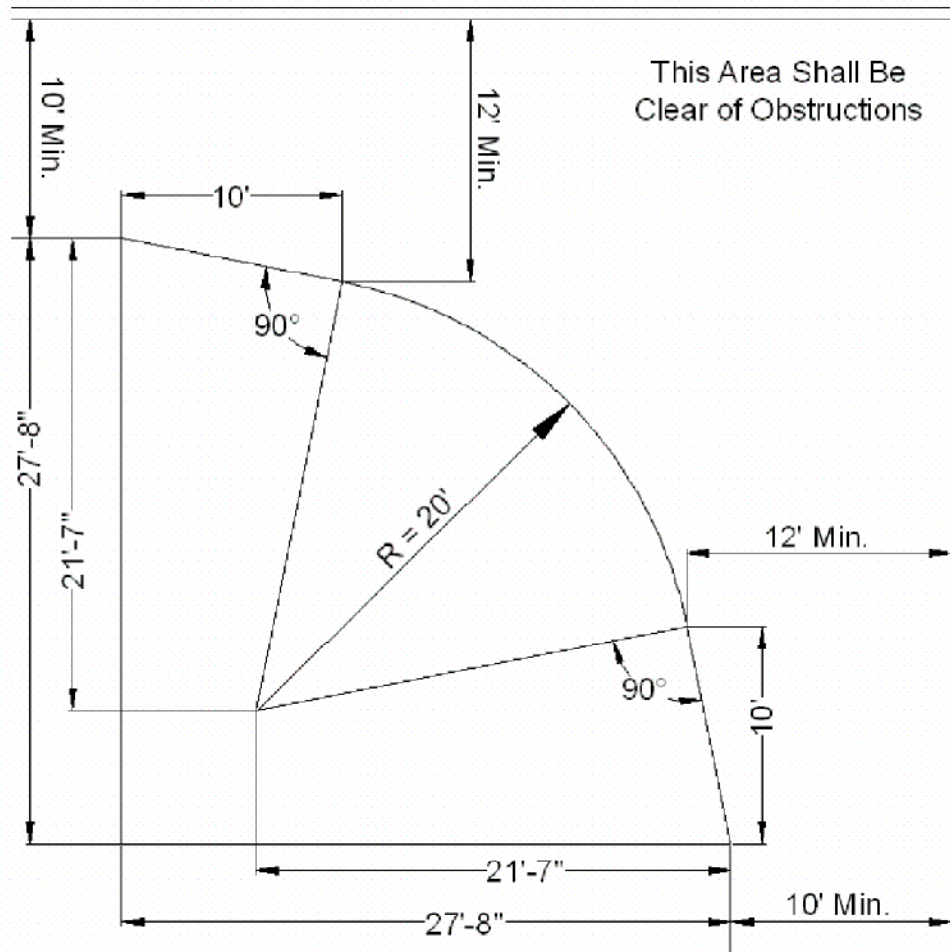


Figure 7 – Turning Areas

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- A CIRCULATION DRIVEWAY HAS MINIMUM DISTANCE OF 13' FOR ONE-WAY TRAFFIC AND PARKING ANGLES OF 90°-45° AND A MINIMUM DISTANCE OF 16' FOR ONE-WAY TRAFFIC AND PARKING ANGLES OF 30°-44°. ANOTHER 10' IS ADDED FOR TWO WAY TRAFFIC, AS SHOWN IN **FIGURE 8**.

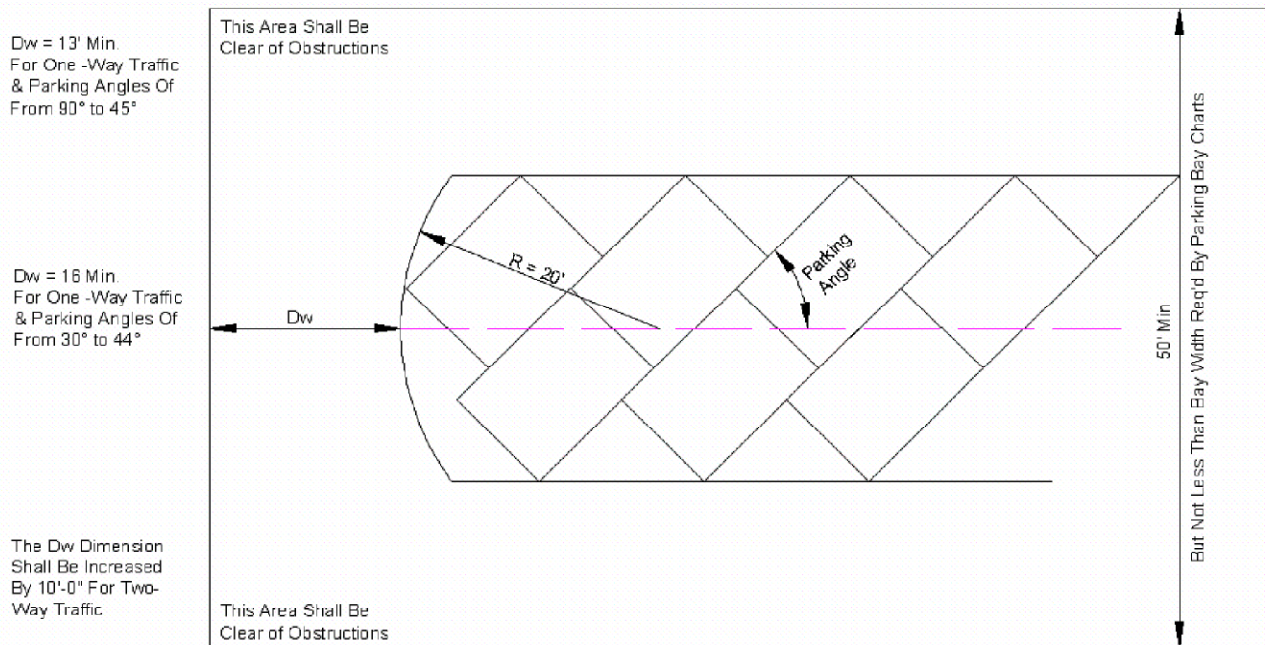


Figure 8: Circulation Driveways for Various Parking Angles.

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MINIMUM DESIGN STANDARDS FOR COUNTY ROADS

Design Feature	Topography	Traffic (ADT)	Under 100	100-400	400-1000	1000-4000	4000-5000	Over 5000
			Min-Desir- mum able	Min-Desir- mum able	Min-Desir- mum able	Min-Desir- mum able	Min-Desir- mum able	Min-Desir- mum able
Minimum Design Speed	Flat	40	50	45	55	60	70	60
	Rolling	30	30	35	45	50	60	50
	Mountainous	20	25	25	35	40	50	40
Radius (Ft.)	Flat	400	650	500	850	1000	1500	1000
(Min. & Desir- able Min.),	Rolling	275	400	350	525	650	1000	800
	Mountainous	100	250	150	325	400	650	700
Grade (%)	Flat	7	4	7	5	6	5	4
(Max. & Desir- able Max.)	Rolling	12	6	10	7	8	6	5
	Mountainous	15	10	12	9	10	7	6
Non-Passing Sight Distance (Ft.)	Flat	275	350	315	415	350	475	600
	Rolling	250	275	240	315	275	350	475
	Mountainous	125	200	165	240	200	275	350
R/W Width (Ft.)		60	60	60	60	80	80	100
Roadbed Width (Ft.)								
Surface Width (Ft.)								
Thickness Base & Surface								
Minimum Bridges Clear Width (Ft.)		24	26	26	30	30	52	52
Vertical Clearance (Ft.)		14.5	15	14.5	15	14.5	15	18
Design Load (A.A.S.H.O.)		H-20	H-20	H-20	H-20	H-20	H-20	H-20

*Grades Over 10% Require Approval By The Director

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MINIMUM DESIGN STANDARDS FOR STREETS

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