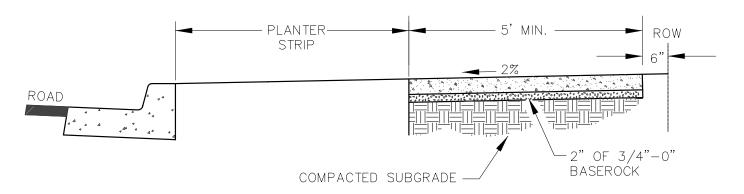


SIDEWALK ADJACENT TO CURB



SIDEWALK AWAY FROM CURB

NOTES:

- 1. CONCRETE SHALL BE 3000 P.S.I. AFTER 28 DAYS.
- 2. PANELS TO BE 5 FEET LONG UNLESS OTHERWISE SPECIFIED.
- 3. EXPANSION JOINTS & CONTRACTION JOINTS SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBRADE TO FINISH GRADE AND PLACED AT SIDES OF DRIVEWAY APPROACHES, UTILITY VAULTS, WHEELCHAIR RAMPS AND AT SPACING NOT TO EXCEED 45 FEET.
- 4. FOR SIDEWALK ADJACENT TO THE CURB AND POURED AT THE SAME TIME AS THE CURB, THE JOINT BETWEEN THEM SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS.
- 5. SIDEWALK SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES IF MOUNTABLE CURB IS USED OR IF SIDEWALK IS INTENDED AS PORTION OF DRIVEWAY. OTHERWISE SIDEWALK SHALL HAVE A MINIMUM THICKNESS OF 4 INCHES.
- 6. DRAIN BLOCKOUTS IN CURBS SHALL BE EXTENDED TO BACK OF SIDEWALK WITH 3" DIAMETER SCHEDULE 40 DWV (ABS OR PVC) PIPE AT 2% SLOPE. CONTRACTION JOINT TO BE PLACED OVER PIPE.
- 7. CONCRETE SHALL HAVE A MEDIUM BROOM FINISH AND TROWELED ON ALL FOUR SIDES



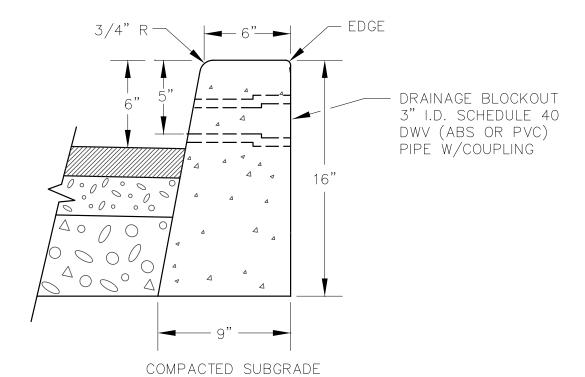
APPROVED BY:
MICHAEL A. STONE, P.E.
CITY ENGINEER

JANUARY 2013

APPROVAL DATE

CONCRETE SIDEWALK

DWG. NO.



- 1. EXPANSION JOINTS:
 - TO BE PROVIDED:
 - 1) AT EACH POINT OF TANGENCY OF THE CURB.
 - 2) AT EACH COLD JOINT.
 - 3) AT EACH SIDE OF INLET STRUCTURES.
 - 4) AT EACH END OF DRIVEWAYS.
 - 5) AT LOCATIONS NECESSARY TO LIMIT SPACING TO 45 FEET.
- TRAVERSE EXPANSION MATERIAL TO BE PRE-MOLDED NON-EXTRUDED MATERIAL WITH A MINUMUM THICKNESS OF 1/2"AND SHALL COVER ENTIRE CROSS SECTION OF CONCRETE.
- TRAVERSE CONTRACTION JOINTS TO BE SPACED NOT MORE THAN 15 FEET APART WITH A DEPTH OF AT LEAST ONE FOURTH OF THE CROSS SECTIONAL AREA.
- CONCRETE BREAKING STRENGTH TO BE 3000 PSI AFTER 28 DAYS.
- DRAINAGE ACCESS THROUGH NEW CURBS SHALL BE PLACED A MIN. OF 2 FEET AND MAX. OF 3 FEET FROM PROPERTY LINES (SEE NOTE 5 STD DETAIL NO. 126
- 6. FOR SUBDIVISIONS AN "S" FOR SANITARY AND A "D" FOR STORM DRAIN SHALL BE STAMPED ON THE TOP OF THE CURB ABOVE THE LATERAL



MICHAEL A. STONE, P.E. CITY ENGINEER

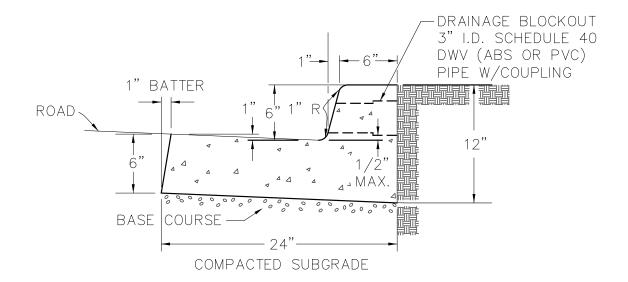
APPROVED BY:

JANUARY 2013 APPROVAL DATE

STANDARD CURB

NO SCALE

DWG. NO.



- CONCRETE TO HAVE A BREAKING STRENGTH OF 3000 P.S.I. AFTER 28 DAYS.
- 2. EXPANSION JOINTS:
 - A. TO BE PROVIDED:
 - 1) AT EACH POINT OF TANGENCY OF THE CURB.
 - 2) AT EACH COLD JOINT.
 - 3) AT EACH SIDE OF INLET STRUCTURES.
 - 4) AT EACH END OF DRIVEWAYS.
 - 5) AT LOCATIONS NECESSARY TO LIMIT SPACING TO 45 FEET.
 - B. MATERIAL TO BE PRE-MOLDED, ASPHALT IMPREGNATED, NON EXTRUDING, WITH A THICKNESS OF 1/2 INCH AND SHALL COVER ENTIRE CROSS SECTION OF CONCRETE.
- 3. CONTRACTION JOINTS:
 - A. SPACING TO BE NOT MORE THAN 15 FEET.
 - B. THE DEPTH OF THE JOINT SHALL BE AT LEAST 1-1/2 INCHES.
- 4. BASE ROCK 2"-0" OR 3/4"-0", 95% COMPACTION. BASE ROCK SHALL BE TO SUBGRADE OF STREET STRUCTURE OR 4" IN DEPTH, WHICHEVER IS GREATER.
- 5. DRAINAGE BLOCKOUT 3" DIAMETER PIPE:
 - A. 3" I.D. PIPE WITH COUPLING.
 - B. DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE CORE DRILLED OR CURB SAW CUT VERTICALLY 18" EACH SIDE OF DRAIN AND REPOURED TO FULL DEPTH OF CURB.
 - C. DRAINAGE ACCESS THROUGH NEW CURBS SHALL BE PLACED A MINIMUM OF 2.0' AND A MAXIMUM OF 3.0' FROM PROPERTY LINES.
- 6. FOR SUBDIVISIONS AN "S" FOR SANITARY AND A "D" FOR STORM DRAIN SHALL BE STAMPED ON THE TOP OF THE CURB ABOVE THE LATERAL



CITY OF TIGARD OREGON

ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT 13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171 FAX: (503) 684-7297 APPROVED BY:
MICHAEL A. STONE, P.E.

CITY ENGINEER

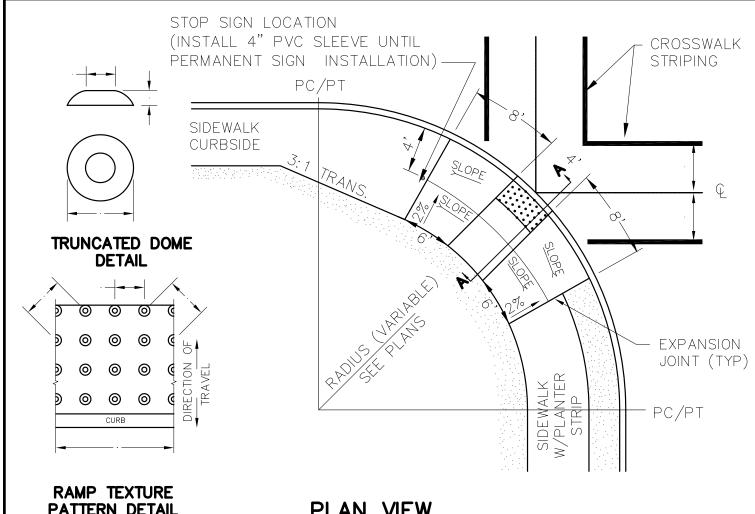
JANUARY 2013

APPROVAL DATE

CURB & GUTTER

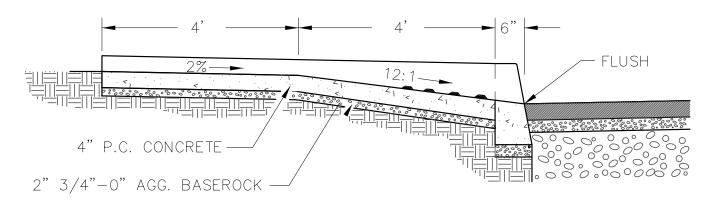
NO SCALE

DWG. NO.



PATTERN DETAIL

PLAN VIEW



SECTION A-A

NOTES:

- 1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
- CONTRACTION JOINTS SHALL BE SCRIBED 3/4" DEEP AND RAMP PANELS SHALL BE BE EDGED ON 4 SIDES.
- EXPANSION JOINTS SHALL BE 1/2" ASPHALT IMPREGNATED MATERIAL OR EQUAL.
- SURFACE SHALL HAVE A MEDIUM BROOM FINISH WITH TROWLED EDGES ON ALL SIDES ..
- COLOR OF DOME AREA SHALL BE COLONIAL RED OR AS APPROVED BY ENGINEER.
- SEE STD DETAIL NO. 146



CITY OF TIGARD OREGON

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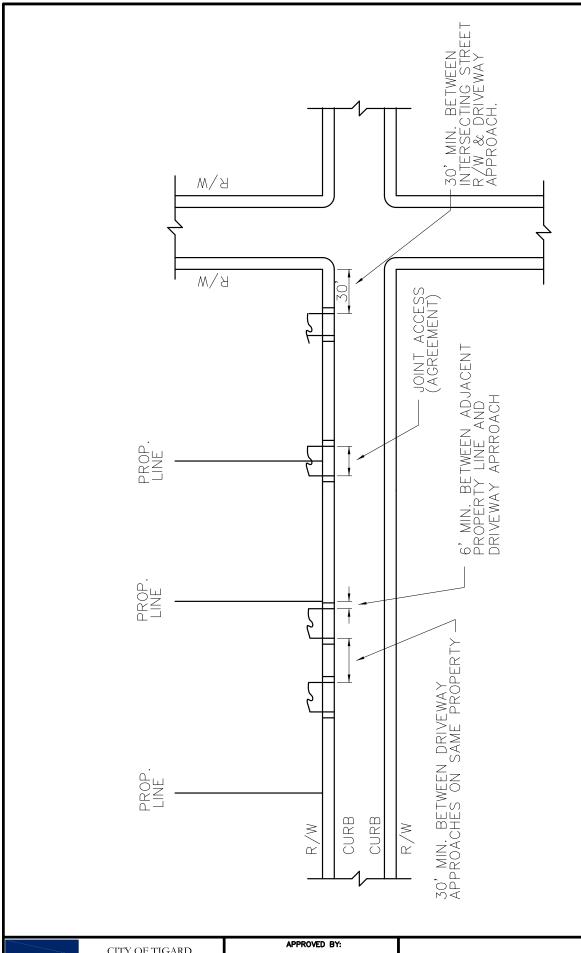
APPROVED BY: MICHAEL A. STONE, P.E.

CITY ENGINEER

JANUARY 2013 APPROVAL DATE

WHEELCHAIR RAMP STANDARD CORNER NO SCALE

DWG. NO.



NOTE: Driveways located on or adjacent to arterial or collector streets shall meet 18.705.030 42

TIGARD

CITY OF TIGARD OREGON

ENGINEERING DIVISION
PUBLIC WORKS DEPARTMENT
13125 S.W. HALL BLVD.
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FAX: (503) 684-7297

MICHAEL A. STONE, P.E.

CITY ENGINEER

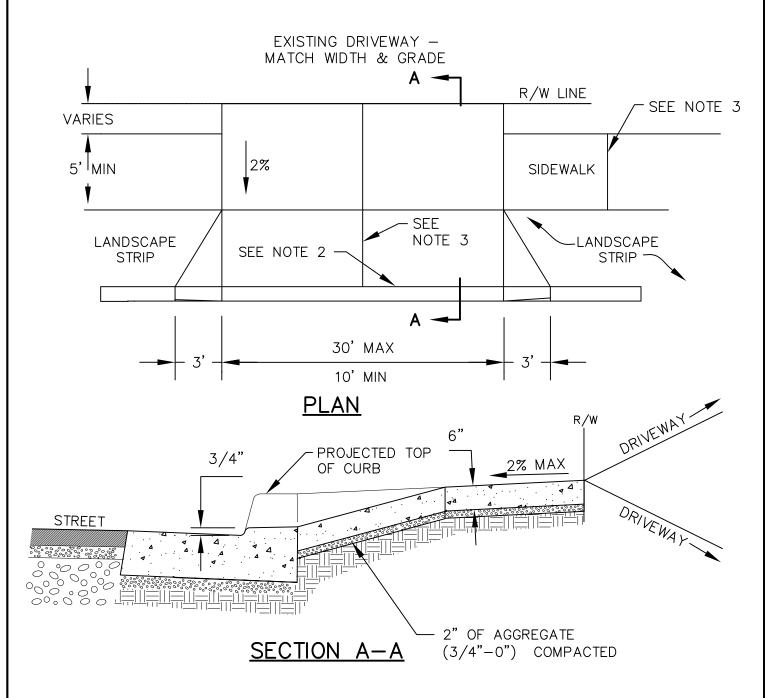
JANUARY 2013

APPROVAL DATE

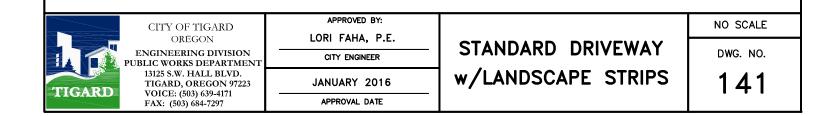
DRIVEWAY APPROACH LOCATIONS

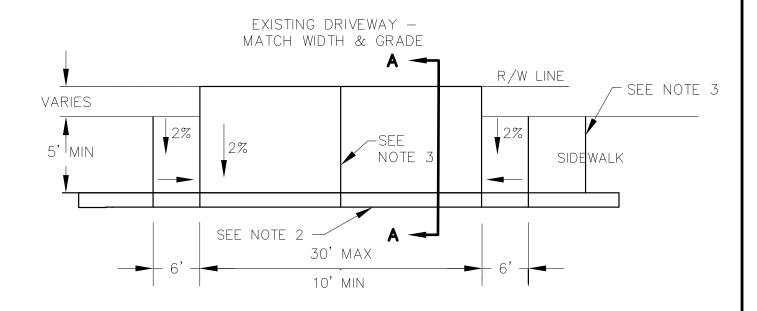
NO SCALE

DWG. NO.

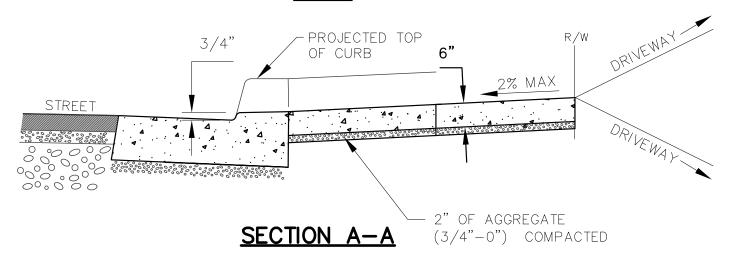


- 1. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINUMUM OF 3000 PSI AFTER 28 DAYS.
- 2. CURB JOINT SHALL BE TROWELED WITH A MIN 1/2" RADIUS ALONG BACK OF CURB.
- 3. EXPANSION & CONTRACTION JOINTS SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBGRADE TO FINISH GRADE.





PLAN



NOTES:

- 1. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINUMUM OF 3000 PSI AFTER 28 DAYS.
- 2. CURB JOINT SHALL BE TROWELED WITH A MIN 1/2" RADIUS ALONG BACK OF CURB.
- 3. EXPANSION & CONTRACTION JOINTS SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBGRADE TO FINISH GRADE.
- 4. SEE STD DETAIL NO. 146



APPROVED BY:
MICHAEL A. STONE, P.E.
CITY ENGINEER

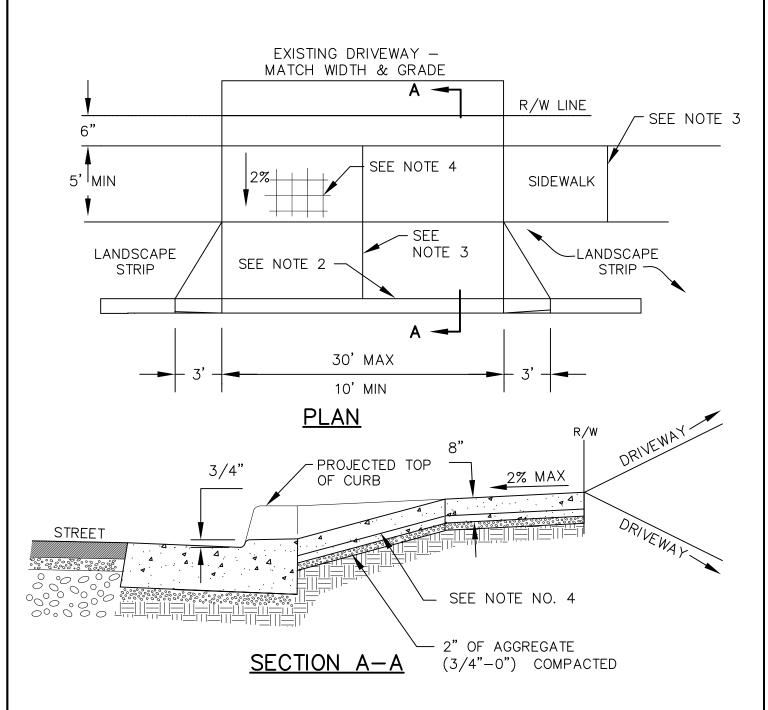
JANUARY 2013

APPROVAL DATE

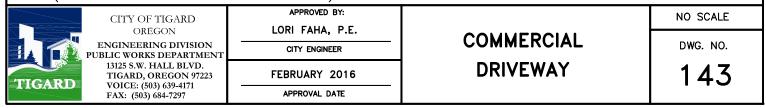
STANDARD DRIVEWAY
w/CURB-TIGHT SIDEWALK

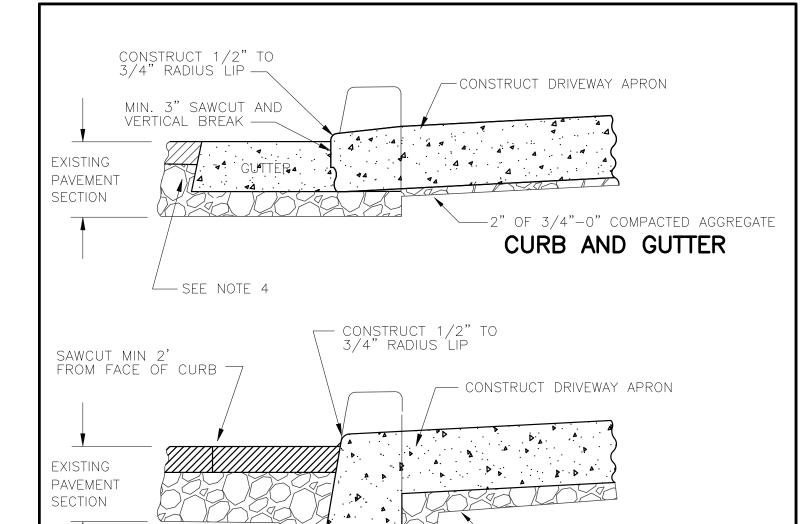
NO SCALE

DWG. NO.



- 1. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINUMUM OF 3000 PSI AFTER 28 DAYS.
- 2. CURB JOINT SHALL BE TROWELED WITH A MIN 1/2" RADIUS ALONG BACK OF CURB.
- 3. EXPANSION & CONTRACTION JOINTS SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBGRADE TO FINISH GRADE.
- 4. DEFORMED #3 REBAR AT 12" EACH WAY. PLACE 3" CLEAR OF AGGREGATE. TIE ALL BARS. (FOR COMMERCIAL DIRVEWAYS ONLY)





- 1. SAWCUT THROUGH GUTTER PLATE SHALL BE MADE AS CLOSE TO CURB FACE AS POSSIBLE.
- 2. COMPLETE CURB AND GUTTER SHALL NOT BE REMOVED UNLESS DIRECTED BY THE ENGINEER.
- 3. WHEN STRAIGHT CURBS ARE REMOVED, A MINIMUM OF 2 FEET OF PAVEMENT FROM THE FACE OF CURB SHALL BE REMOVED AND REPLACED.
- 4. WHEN ENTIRE GUTTER PLATE IS REMOVED THE EXISTING PAVEMENT SHALL BE CUT BACK AND A NEW 6" MONOLITHIC CONCRETE GUTTER CONSTRUCTED.
- 5. AFTER CONCRETE HAS CURED, REPLACE REMOVED ASPHALT AND SEAL JOINT.



CITY OF TIGARD OREGON

ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT 13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171 FAX: (503) 684-7297 APPROVED BY:

MICHAEL A. STONE, P.E.

CITY ENGINEER

JANUARY 2013

APPROVAL DATE

CURB KNOCKOUT FOR DRIVEWAYS

NO SCALE

-2" OF 3/4"-0" COMPACTED AGGREGATE

STANDARD CURB

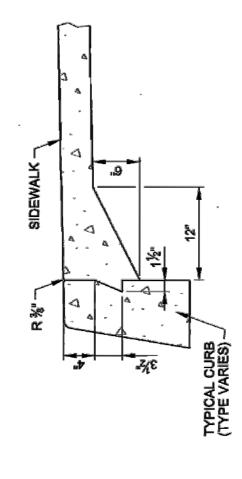
DWG. NO.

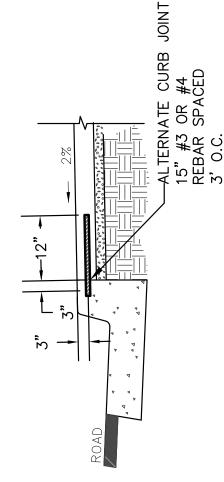
TYPICAL CURB
(TYPE VARIES)

2. A

KEYED COMBINATION CURB AND SIDEWALK WILL ONLY BE APPROVED WHEN IT IS NOT FEASIBLE TO CONSTRUCT MONOLITHIC COMMBINATION CURB AND SIDEWALK

2. ALL THREE OPTIONS SHOWN ARE ACCEPTABLE. A TRAPEZOIDAL KEYWAY IS NOT AN APPROVED OPTION.





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MICHAEL A. STONE, P.E.

CITY ENGINEER

JANUARY 2013

APPROVAL DATE

KEYED COMBINATION CURB & SIDEWALK

NO SCALE

DWG. NO.

STREET CENTERLINE PAVEMENT EDGE SHOULDER EDGE R = 25'- CULVERT (10" MIN DIA) WIDTH AS SHOWN ON PLANS PLAN VIEW CENTERLINE GRAVEL - MIN SLOPE 2% SHOULDER STREET SURFACE 9 STREE SECTION A-A NOTE: A.C. DRIVEWAY IS TO BE CONSTRUCTED OF 3" CLASS "C' MIX ON APPROVED BASE WITHIN PUBLIC RIGHT OF WAY. CONCRETE HEADWALL REQUIRED WHEH USING PIPE OTHER THAN CONCRETE -DRIVEWAY SURFACE /4" ROCK-REINFORCED CONCRETE PIPE 6" SECTION B-B ALTERNATIVE PIPE



NOTE:

CITY OF TIGARD OREGON

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MICHAEL A. STONE, P.E.
CITY ENGINEER

JANUARY 2013

APPROVAL DATE

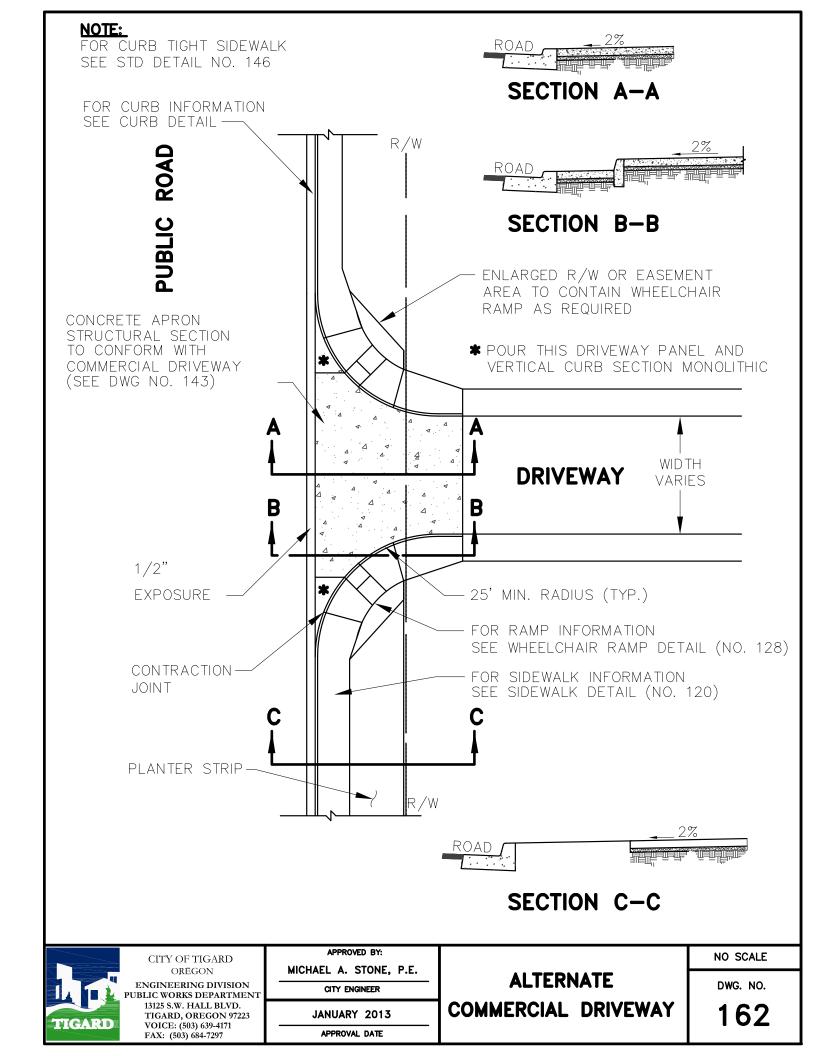
PIPE SIZE TO BE DETERMINED BY CITY ENGINEER

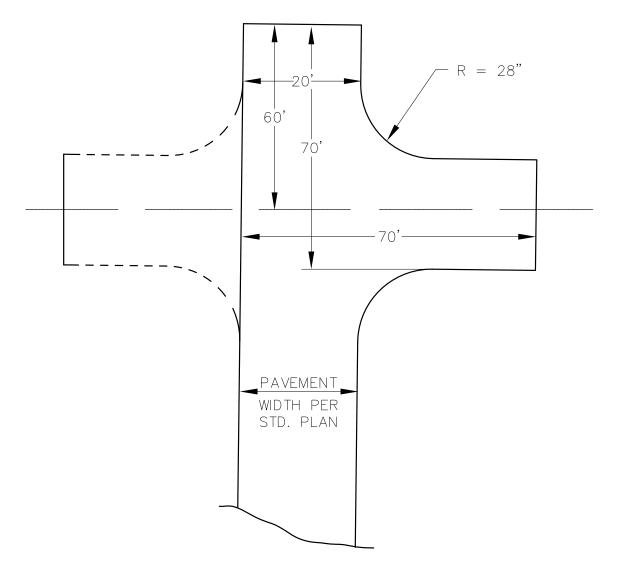
DRIVEWAY CULVERT STREETS W/O CURB

AS APPROVED

NO SCALE

DWG. NO.





APPROPRIATE SIGNING SHALL BE DETERMINED BY THE FIRE MARSHALL.



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APPROVED BY:

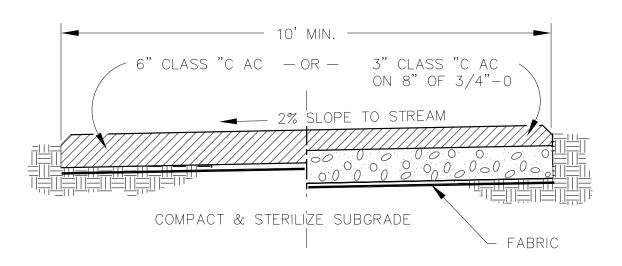
MICHAEL A. STONE, P.E.

CITY ENGINEER

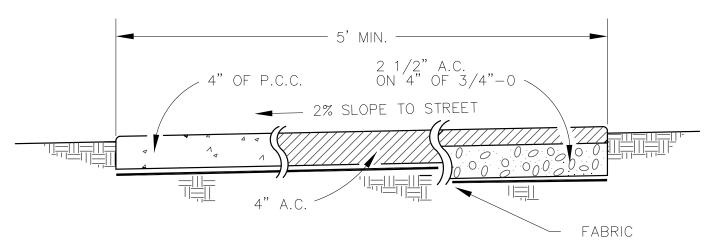
JANUARY 2013 APPROVAL DATE

FIRE TRUCK **TURNAROUND** NO SCALE

DWG. NO.



MAINTENANCE ACCESS



PEDESTRIAN PATH OR BIKEWAY

NOTES:

- 1. CONCRETE SHALL BE 3000 P.S.I. AT 28 DAYS, 6 SACK MIX, SLUMP RANGE OF 1 1/2"-3"
- 2. CONCRETE PANELS SHALL BE SQUARE, 3/4" DEEP SCRIBES AT JOINTS 6 FEET APART, EDGED ON 4 SIDES AND HAVE A LIGHT BROOM FINISH.
- 3. FABRIC TO BE A WOVEN GEOTEXTILE (AMOCO 2006) OR APPROVED EQUAL.
- 4. COMPACT AND STERILIZE SUBGRADE.

	CITY OF TIGARD OREGON
	ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT
TIGARD	13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171
	FAX: (503) 684-7297

APPROVED BY:
MICHAEL A. STONE, P.E.

CITY ENGINEER

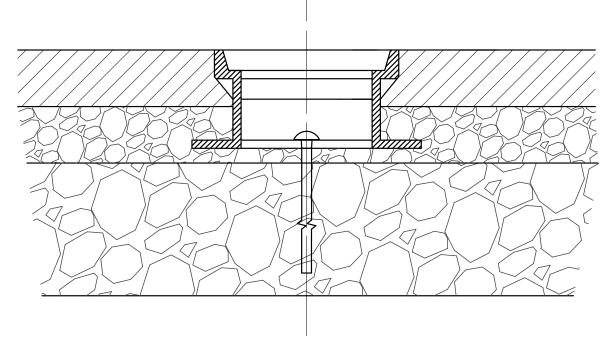
JANUARY 2013

APPROVAL DATE

MAINTENANCE ACCESS OR PEDESTRIAN/BIKE PATH

NO SCALE

DWG. NO.



MONUMENT CASE & COVER

NOTES:

1. MONUMENT BOXES TO BE CAST IRON OR ALLOY SUITABLE FOR HEAVEY TRAFFIC LOADING #1036 OR 1033 SUPPLIED BY:

EAST JORDAN IRON WORKS, INC.

(PART NUMBER 3680)

13127 STATE AVE

MARYSVILLE WA 98271

(360)651-6144

SALES REP: (503)367-7925

- 2. ALTERNATIVE TYPES MUST BE APPROVED BY THE CITY ENGINEERING DEPARTMENT.
- 3. APPROVED FOR ALL STREET CLASSIFICATIONS.
- 4. MONUMENT TO BE NO DEEPER THAN 6" BELOW FINISH GRADE.



CITY OF TIGARD OREGON

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MICHAEL A. STONE, P.E.

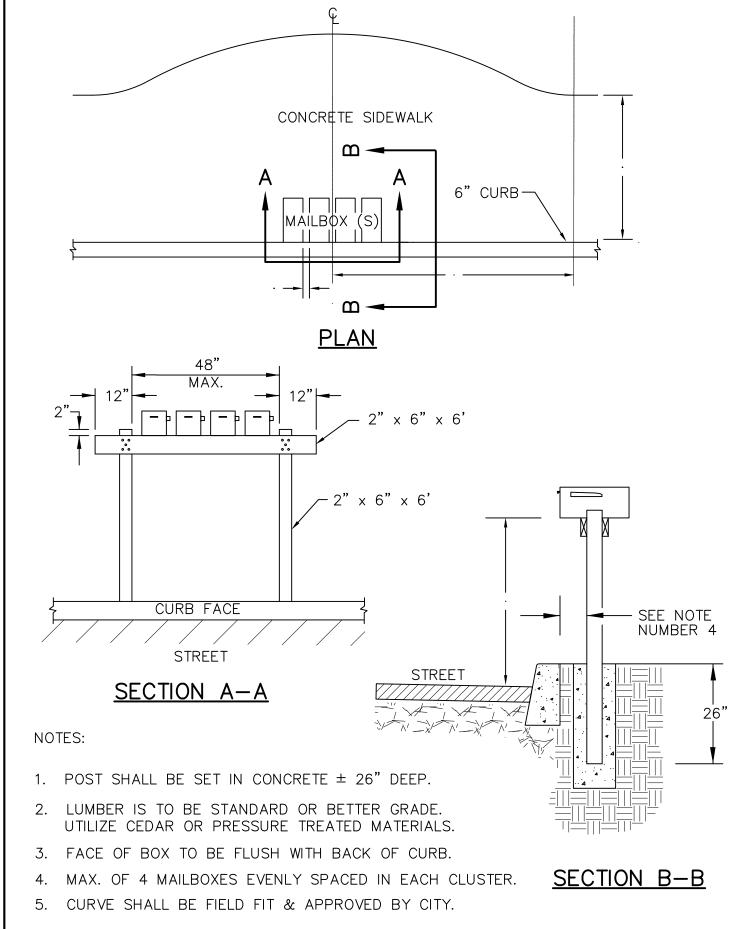
CITY ENGINEER

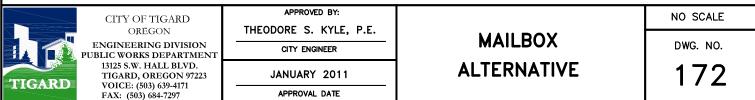
JANUARY 2013

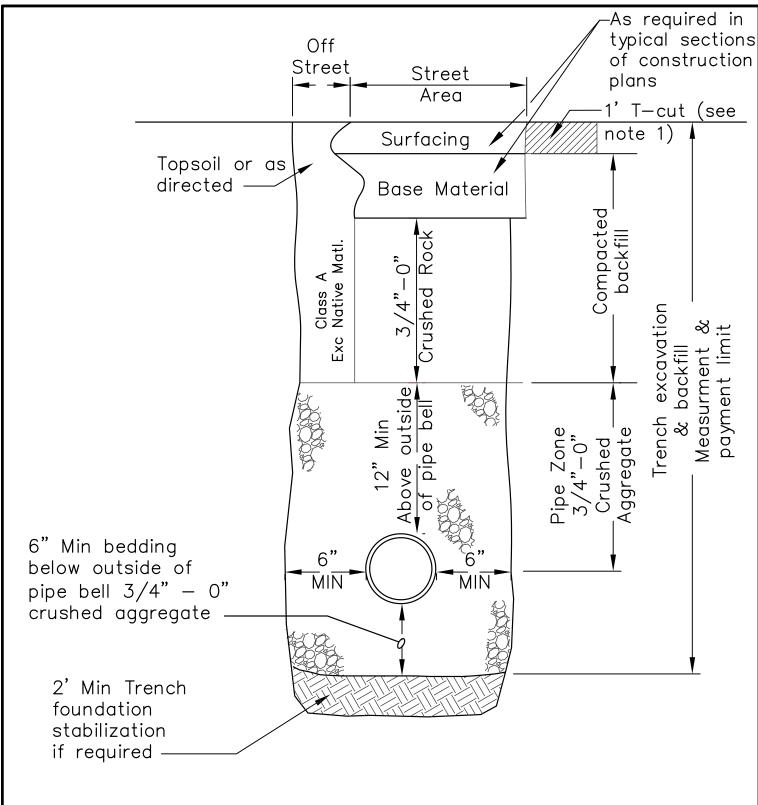
APPROVAL DATE

MONUMENT BOX NO SCALE

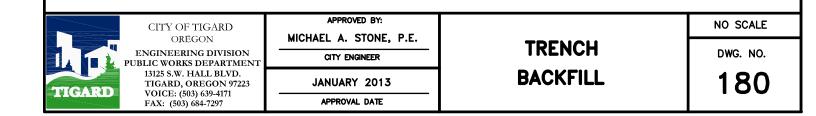
DWG. NO.

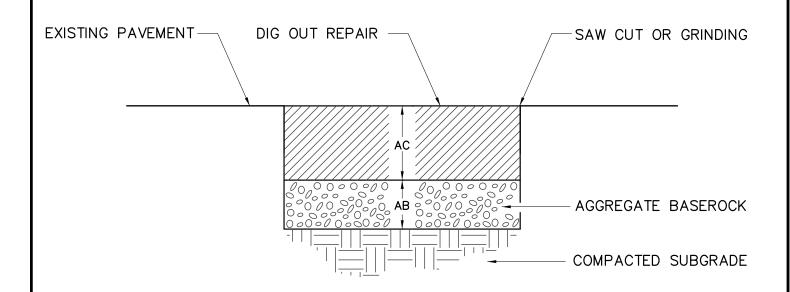






- 1. 1' T-CUT FOR PIPE ONLY PROJECTS.
- 2. JOINTS TO BE TACK AND SANDED.
- 3. SAWCUT SHALL BE TACK COATED WITH BITUMINUS ASPHALT EMULSION.





LOCAL STREETS:

AC - 6" CLASS "C" ASPHALTIC CONCRETE, (1-1/2" - 0") AGGREGATE BASEROCK OR

AC - 8" CLASS "C" ASPHALTIC CONCRETE

MAJOR COLLECTOR STREETS:

AC - 9" CLASS "C" ASPHALTIC CONCRETE, AB - 4" (1-1/2" - 0") AGGREGATE BASEROCK

NOTES:

- 1. JOINTS TO BE TACK AND SANDED WITH BITUMINUS ASPHALT EMULSION ..
- 2. ASPHALT PLACED IN MAX. 3" LIFTS EACH COMPACTED TO 92% MIN.



MICHAEL A. STONE, P.E. CITY ENGINEER

APPROVED BY:

JANUARY 2013 APPROVAL DATE

PAVEMENT DIG-OUT AND REPAIR

NO SCALE

DWG. NO.

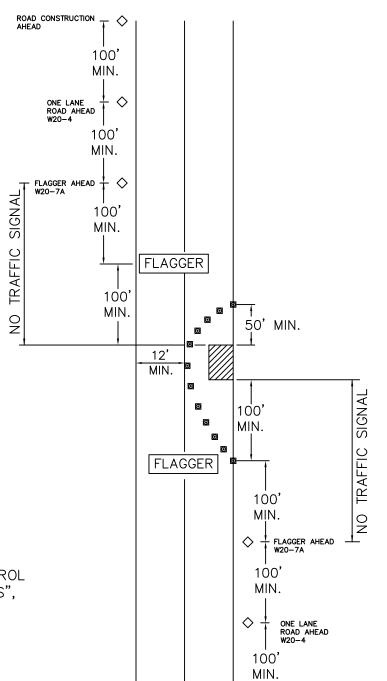
LEGEND

- □ CONSTRUCTION ZONE
- TRAFFIC CONES OR APPROPRIATE DELINEATION DEVICE.

- TRAFFIC CONTROL PLANS REQUIRED.
- TRAFFIC SIGNS TO BE 48" X 48" BLACK ON ORANGE.
- NO COLLECTOR STREET LANE OR LOCAL STREET CLOSURES DURING THE FOLLOWING TIME PERIODS:

7:00 - 9:00 A.M. 3:30 - 6:00 P.M.

- 4. INSTALL IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", U.S. DEPT. OF TRANSPORTATION, FHUA, 1988 EDITION.
- 5. ACTUAL SIGN PLACEMENT TO BE ADJUSTED IN FIELD.
- 6. THE CITY RESERVES THE RIGHT TO ADD TO OR MODIFY TRAFFIC CONTROL REQUIREMENTS AS MAY BE NECESSARY TO EFFECTIVELY CONTROL TRAFFIC AND TO ENSURE PUBLIC SAFETY.
- NO LANE CLOSURES WITHIN 200 FEET OF A TRAFFIC SIGNAL WITHOUT PRIOR CITY APPROVAL.





APPROVED BY:
AGUSTIN P. DUENAS, P.E.

CITY ENGINEER

AUGUST 2009

APPROVAL DATE

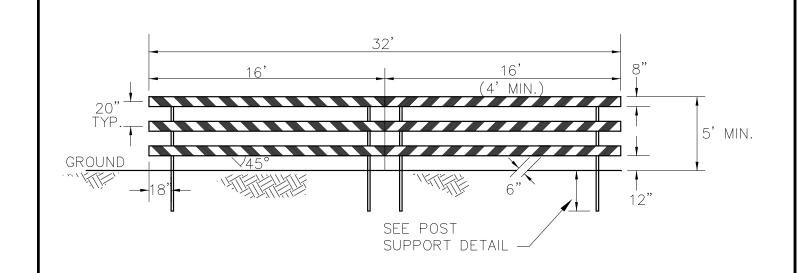
TYPICAL TRAFFIC CONTROL PLAN

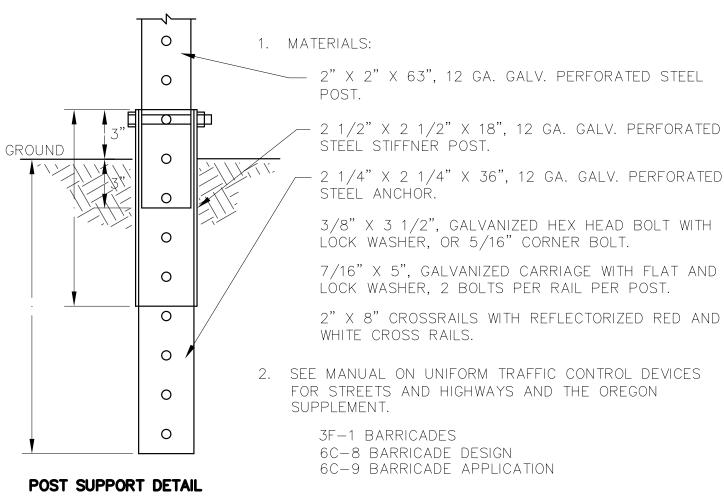
NO SCALE

ROAD CONSTRUCTION

AHEAD

DWG. NO.





- 3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION
- 4. BARRICADE FOR SIDEWALK IS SIMILAR.

	CITY OF TIGARD
	OREGON
	ENGINEERING DIVISION
	PUBLIC WORKS DEPARTMENT
	13125 S.W. HALL BLVD.
	TIGARD, OREGON 97223
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	FAX: (503) 684-7297

APPROVED BY:
MICHAEL A. STONE, P.E.
CITY ENGINEER

JANUARY 2013

APPROVAL DATE

STREET BARRICADE

NO SCALE