

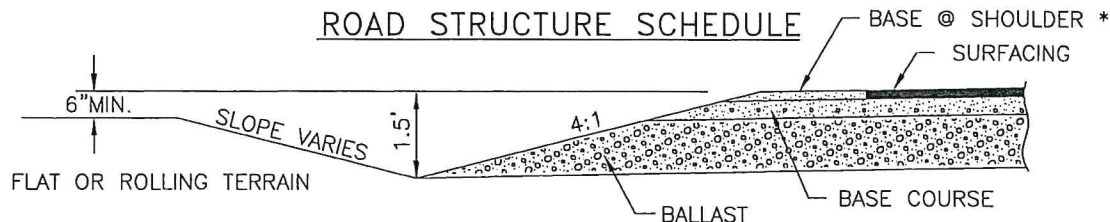
TYPICAL RURAL ROAD SECTION

N.T.S.

CLASS OF ROAD	BALLAST ③	BASE COURSE ③	PLANT MIX PAVEMENT ③	PAVEMENT WIDTH	RIGHT-OF-WAY WIDTH (FT)
ARTERIAL	12"	4"	4"	40' - 64'	80 - 120
COLLECTOR	12"	4"	4"	24' - 40' ⑤	60 - 120
LOCAL RESIDENTIAL	12"	4"	2"	22' - 28' ⑤	60
INDUSTRIAL COMMERCIAL	12"	4"	4"	24' - 64'	*OUTSIDE ACI

NOTES:

- ① SURFACING SHALL BE PLANT MIX ASPHALT, ITD SP-3 1/2-INCH WITH CHIP SEAL AS REQUIRED BY INDIVIDUAL HIGHWAY DISTRICTS. CHIP SEALS SHALL BE APPLIED WITHIN 1 TO 2 YEARS OF ALL NEWLY PAVED ROADS, THE SEASON FOLLOWING THE INITIAL YEAR OF PAVING.
- ② IN CUT AND FILL SECTIONS, 10 FEET AT THE TOP OF CUT AND 15 FEET AT TOE OF FILL MAY SERVE AS ROADWAY, UTILITY & DRAINAGE EASEMENT WITH CONCURRENCE OF THE HIGHWAY DISTRICT.
- ③ ROAD STRUCTURE SECTIONS SHOWN ARE FOR GRANULAR SUBGRADE OR SUBGRADE SOILS WITH AN R VALUE GREATER THAN 15. A GEOTECHNICAL DESIGN IS REQUIRED FOR OTHER SOIL CONDITIONS. SUBGRADE TO BALLAST FABRIC SEPARATION IS REQUIRED ON NON-GRANULAR SUBGRADES. SEEDING OF ALL DENUDED AREAS IS REQUIRED.
- ④ DEPTHS ARE MINIMUM COMPACTED DEPTH REQUIREMENTS.
- ⑤ SEE SECTION 306 - ROADWAY CROSS SECTION.
- ⑥ CURB, GUTTER AND ROADWAY SECTION SHALL COMPLY WITH APPLICABLE CITY STANDARDS WHEN LOCATED WITHIN AREA OF CITY IMPACT.
- ⑦ ROAD CENTERLINE PROFILE MUST BE ABOVE THE ORIGINAL GROUND LINE AT CENTERLINE AND EDGE OF RIGHT OF WAY, IN FLAT OR ROLLING TERRAIN.

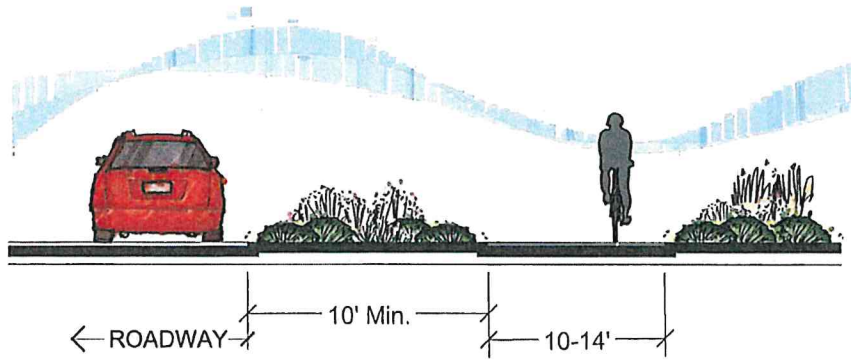


DETAIL A

N.T.S.

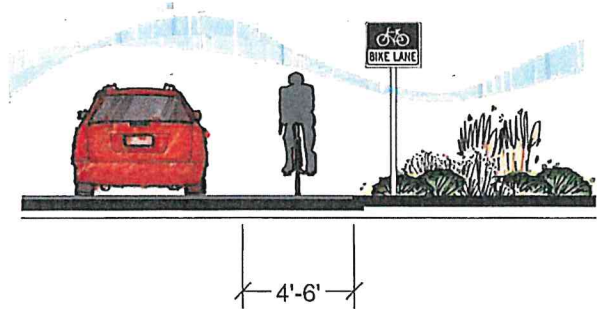
* SHOULDER MAY BE PAVED 1.0 FOOT WIDE WITH PLANT MIX ASPHALT ON LOCAL RURAL ROADS WITH HIGHWAY DISTRICT APPROVAL.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



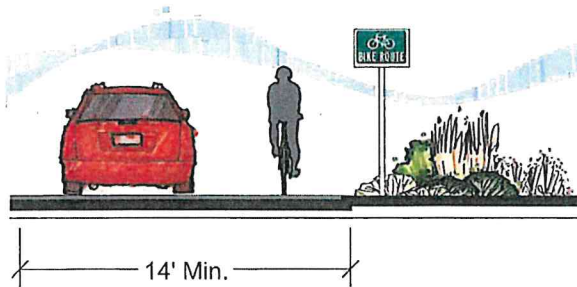
(Separated path from roadway for exclusive use of bicycles and pedestrians)

CLASS I BIKE PATH



Width depends on parking and edge condition
(Striped Bike Lane with Bike Lane symbol)

CLASS II BIKE LANE

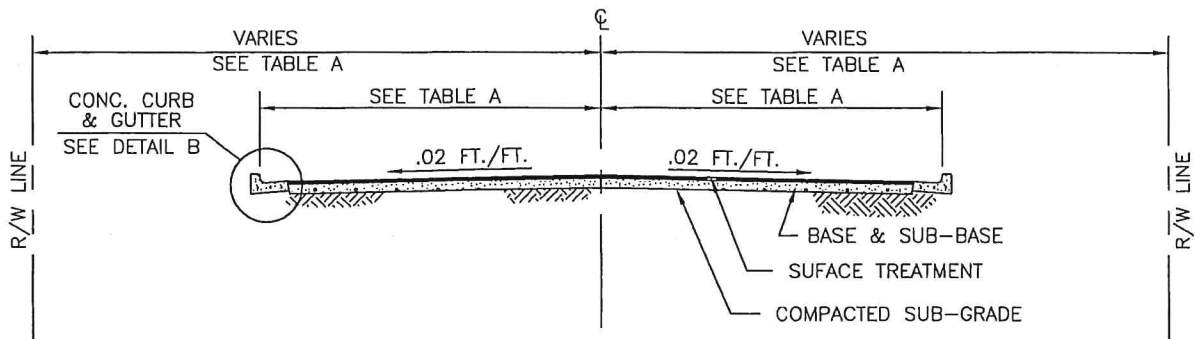


Shared use with pedestrians and motor vehicle traffic.

CLASS III BIKE ROUTE

NOTES:
BIKE LANES/ROUTES SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES AND WITH THE CONCURRENCE OF THE RESPECTIVE HIGHWAY DISTRICT.

BIKE LANE CLASSES
ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



TYPICAL CURB & GUTTER SECTION

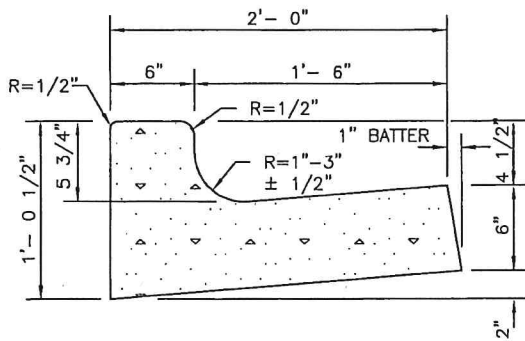
N.T.S.

CLASS OF ROAD	ROAD WIDTH FACE-FACE OF CURB	RIGHT-OF-WAY WIDTH (FT)	CURB TYPE
MINOR ARTERIAL	64'- 0"	80 - 120	VERTICAL
COLLECTOR OR COMMERCIAL	40'- 0"	60 - 120	VERTICAL
LOCAL RESIDENTIAL	36'- 0"	60 - 80	VERTICAL OR ROLL

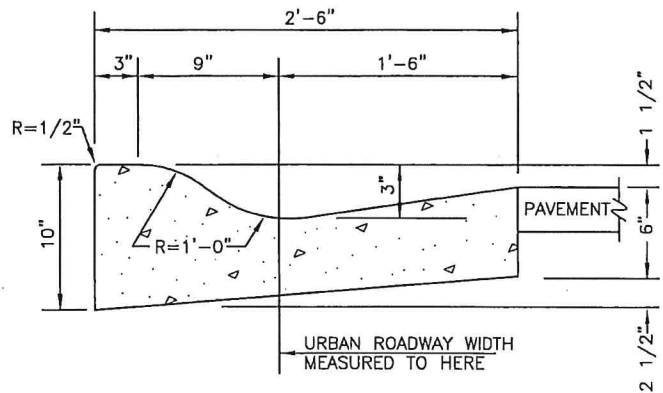
TABLE A

DETAIL B

N.T.S.



VERTICAL CURB



ROLL CURB
(LOCAL ROADS ONLY)

NOTES:

① CURB, GUTTER AND ROADWAY SECTION SHALL COMPLY WITH APPLICABLE CITY STANDARD WHEN LOCATED WITHIN AN AREA OF CITY IMPACT.

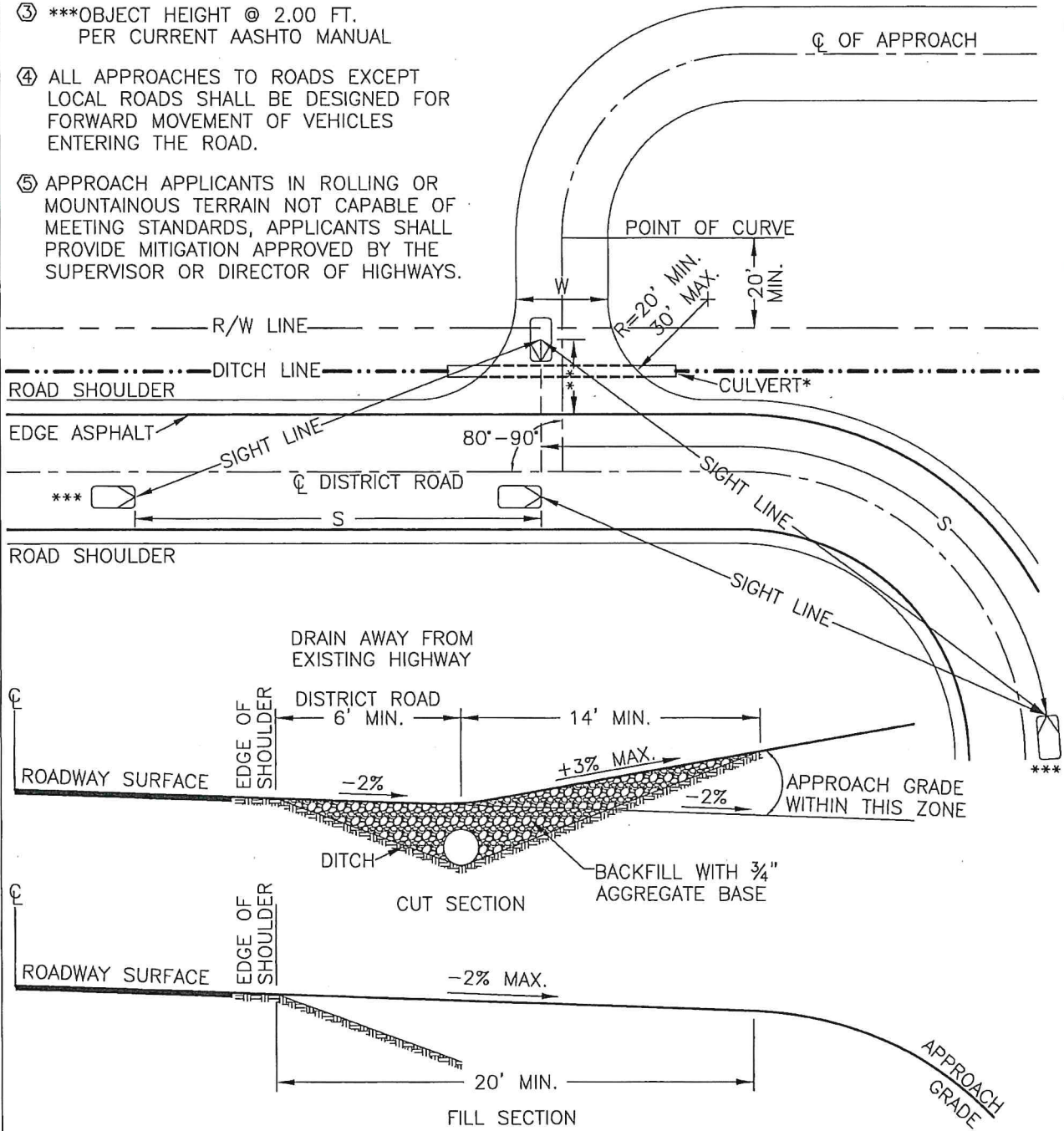
ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

MINIMUM STOPPING SIGHT DISTANCES

DESIGN SPEED MPH	20	25	30	35	40	50	60
STOPPING DISTANCE, (S) FEET	115	155	200	250	305	425	570

NOTES:

- ① *CULVERT
MIN. 12" DIAMETER
MIN. 40' LENGTH
- ② **10' FROM EDGE OF ROADWAY
TO DRIVER'S EYE POSITION @ 3.50 FT.
ABOVE ROAD
- ③ ***OBJECT HEIGHT @ 2.00 FT.
PER CURRENT AASHTO MANUAL
- ④ ALL APPROACHES TO ROADS EXCEPT
LOCAL ROADS SHALL BE DESIGNED FOR
FORWARD MOVEMENT OF VEHICLES
ENTERING THE ROAD.
- ⑤ APPROACH APPLICANTS IN ROLLING OR
MOUNTAINOUS TERRAIN NOT CAPABLE OF
MEETING STANDARDS, APPLICANTS SHALL
PROVIDE MITIGATION APPROVED BY THE
SUPERVISOR OR DIRECTOR OF HIGHWAYS.



STANDARD APPROACH POLICY

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

Dear Building Contractor and/or Owner:

Both Kootenai County and the Associated Highway Districts of Kootenai County have minimum requirements for access roadways and driveways to residential properties. The Highway District's requirements are set forth in this letter. Failure to comply with these regulations has caused a multitude of problems for residents and the Highway District. This letter is provided to you as part of a continuing effort by the Highway District to improve the safety and integrity of roadways in the District.

In an effort to avoid future problems, the Highway District will be performing a thorough review before signing off on Approach Permits. To perform this review, the District will require site information related to the approach. The District's efforts will also be of value to the owner by improving the awareness of the relationship between the home site, driveway and approach to the roadway.

Prior to obtaining Highway District approval for an approach permit, the Highway District will require submission of a site plan for the lot and driveway showing:

1. A 20 foot minimum, 30 foot maximum curve radius on edge of the driveway from the edge of the roadway pavement. All of the driveway, including the radius shall be within the extension of the lot line or property line.
2. A minus 2% driveway slope from the edge of the pavement to the center of the ditch line. This allows surface water from the driveway to drain off into the ditch and not sheet drain onto the roadway.
3. A positive 3% maximum driveway slope from the center of the ditch line to the right-of-way line where the driveway goes uphill from the roadway.
4. A minus 2% driveway slope from the edge of pavement for a distance of at least 20' where the driveway goes downhill from the roadway.
5. The proposed driveway slope from the right-of-way line to the garage or parking pad. The Highway District suggests meeting the requirements of Kootenai County's Ordinance for private road or driveway grades. Grades of 10% or greater shall not exceed one hundred (100) feet in length".
6. A sectional drawing of the driveway within the Highway District right-of-way showing driveway width, ditch section, maximum slopes for grading, maximum slope heights and erosion control measures to be used on the slopes. The driveway standard for the Highway District within the District's right-of-way is a width of at least 20 feet.
7. A site plan showing the location of the house and garage and/or parking pad with dimensions from side, front and rear lot lines. The site plan must provide for forward movement of all vehicles as they enter the Highway District roads.
8. The site plan shall show the proposed location of mailbox and any mailbox turnout area.

If you have any further questions, please don't hesitate to contact the appropriate Highway District:

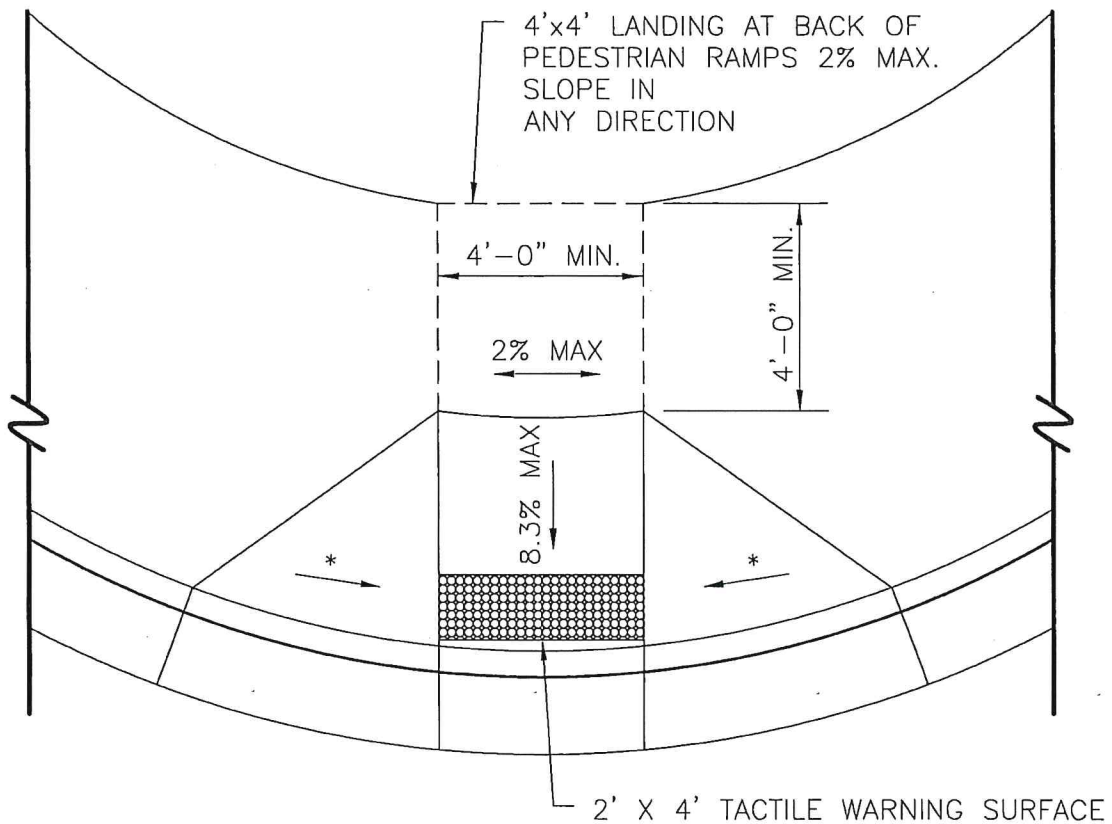
East Side Highway District (208) 765-4714

Lakes Highway District (208) 772-7527

Post Falls Highway District (208) 765-3717

Worley Highway District (208) 664-0483

SD-3B



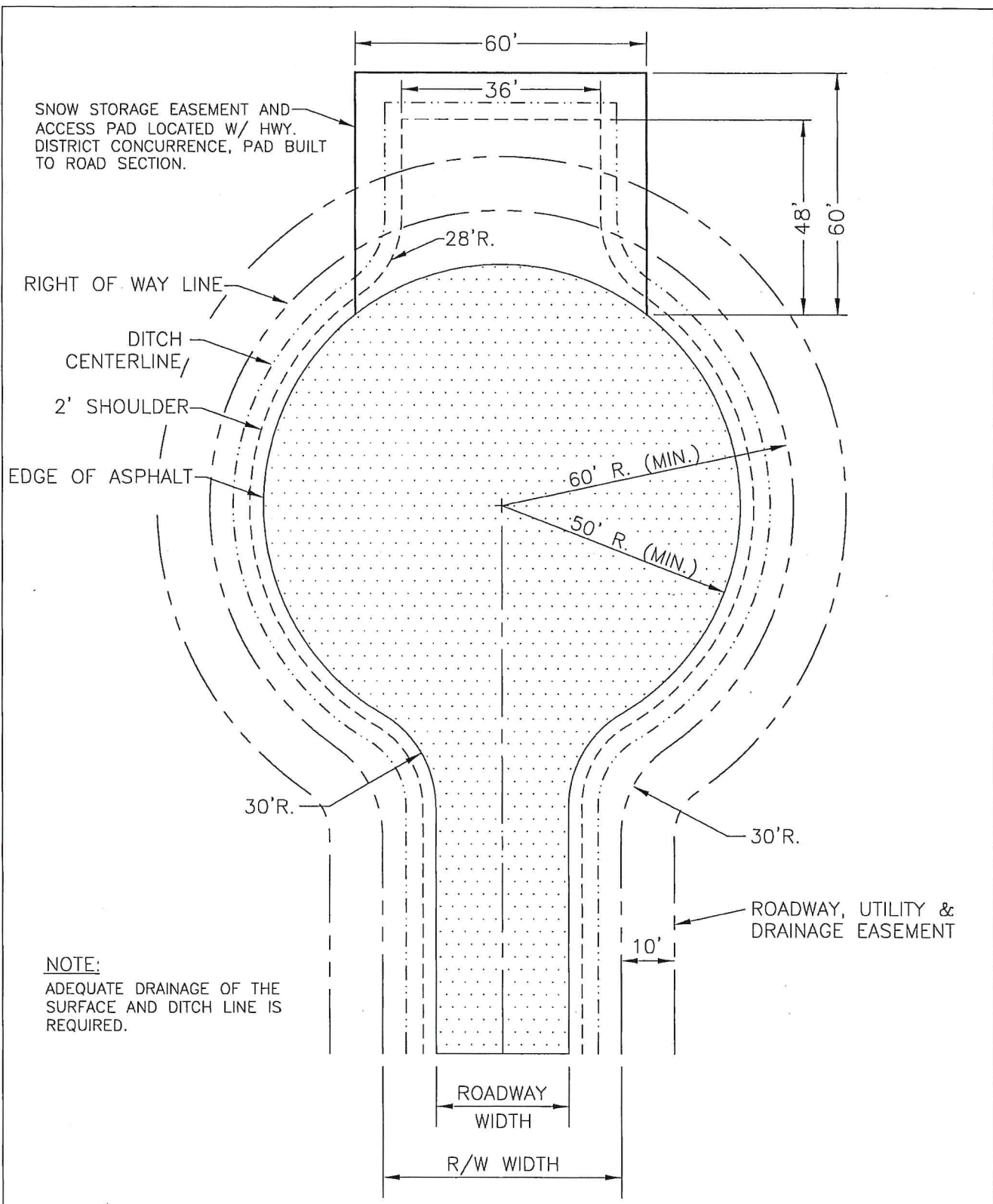
* MAXIMUM SLOPE 1:10

NOTES:

- ① PEDESTRIAN CURB DROPS ARE REQUIRED WHERE CURBS ARE USED.
- ② ALL PEDESTRIAN CURB DROPS MUST MEET AREA OF CITY IMPACT STANDARDS FOR THE LOCAL COMMUNITY.
- ③ ALL PEDESTRIAN CURB DROPS MUST COMPLY WITH THE AASHTO STANDARDS AND ADA REQUIREMENTS, LATEST EDITIONS.

STANDARD PEDESTRIAN CURB DROP

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

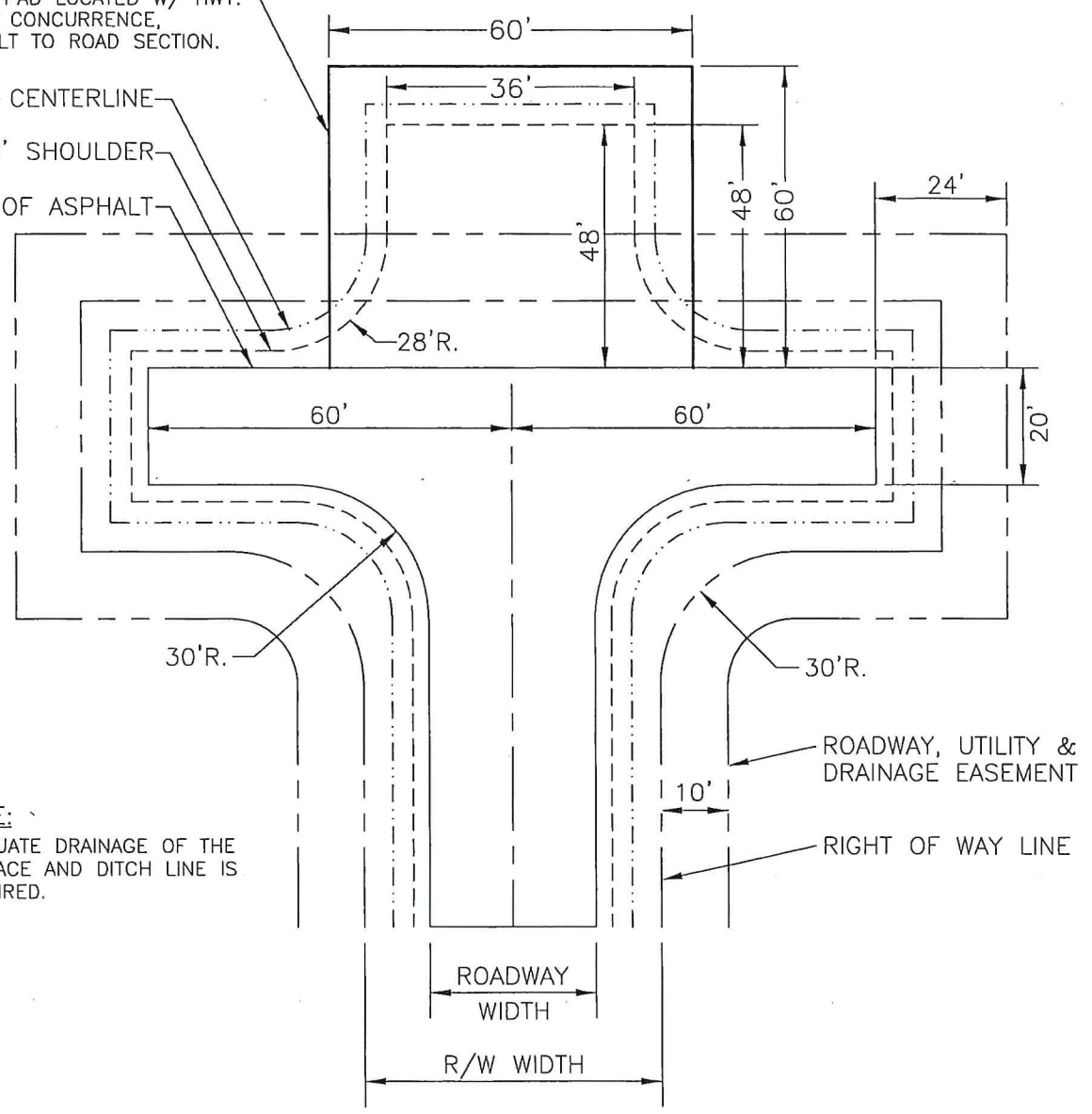


STANDARD CUL-DE-SAC LAYOUT
N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SNOW STORAGE EASEMENT AND ACCESS PAD LOCATED W/ HWY. DISTRICT CONCURRENCE, PAD BUILT TO ROAD SECTION.

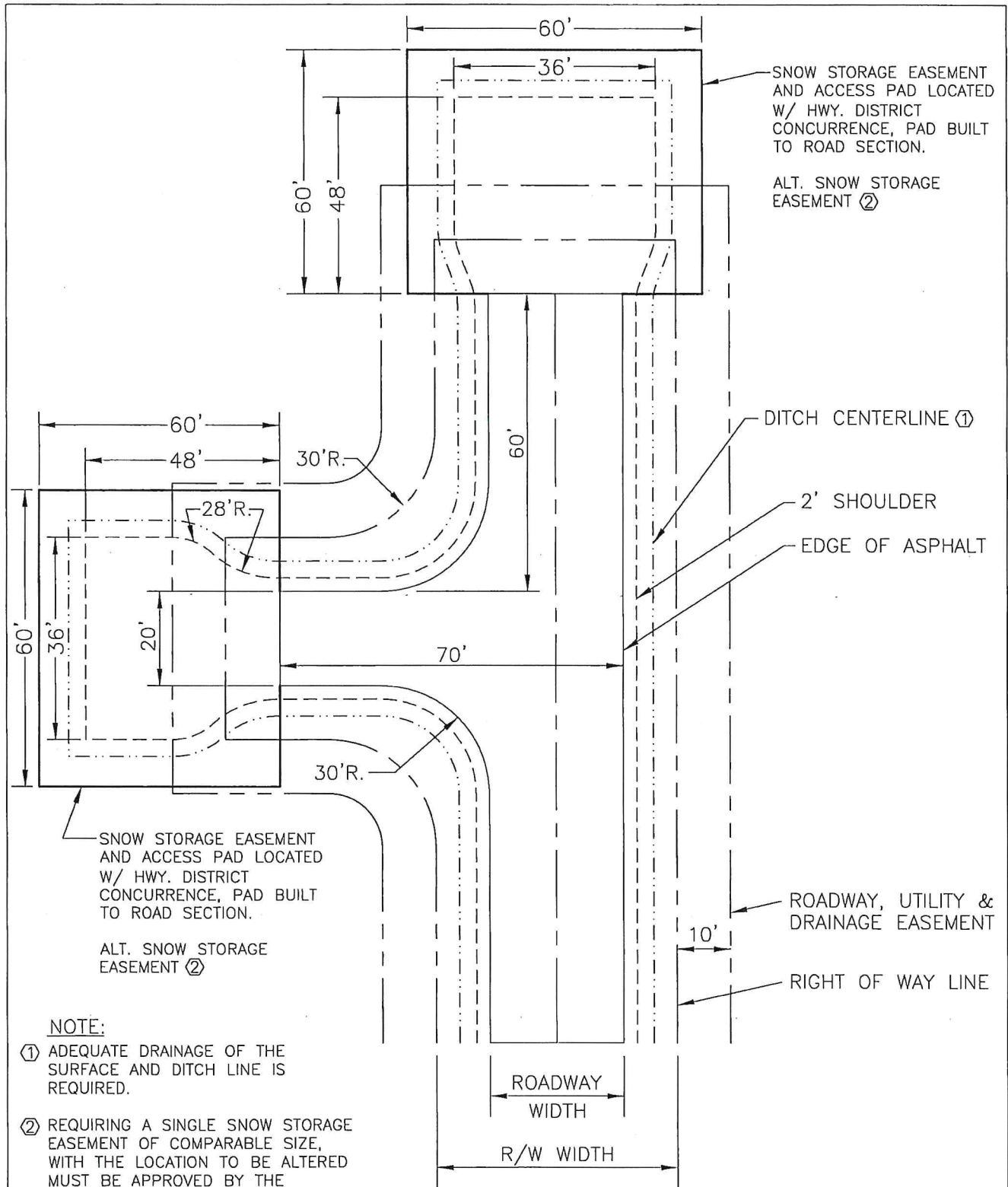
DITCH CENTERLINE
2' SHOULDER
EDGE OF ASPHALT



NOTE: ADEQUATE DRAINAGE OF THE SURFACE AND DITCH LINE IS REQUIRED.

STANDARD HAMMERHEAD TURNAROUND LAYOUT
N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



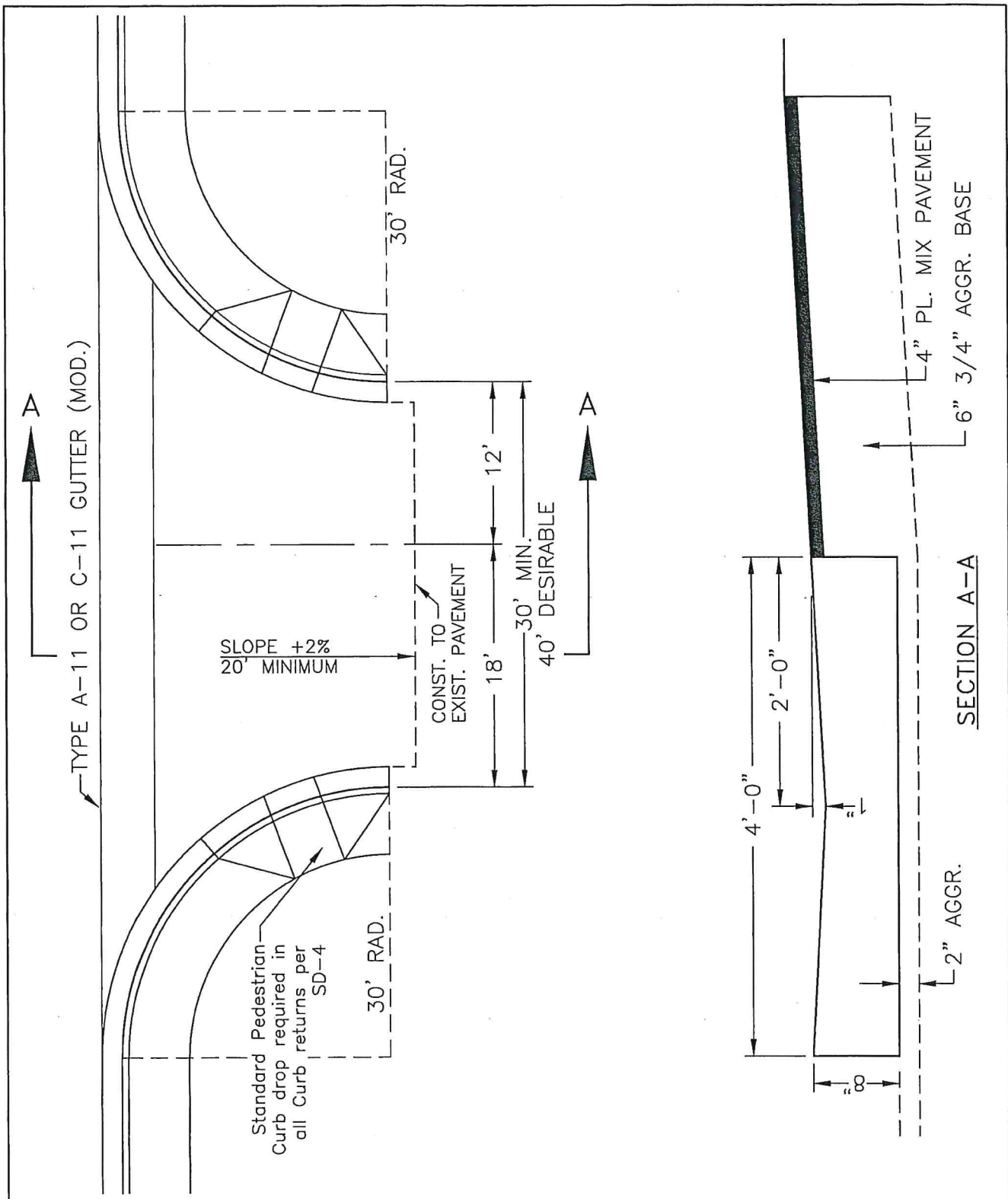
NOTE:

- ① ADEQUATE DRAINAGE OF THE SURFACE AND DITCH LINE IS REQUIRED.
- ② REQUIRING A SINGLE SNOW STORAGE EASEMENT OF COMPARABLE SIZE, WITH THE LOCATION TO BE ALTERED MUST BE APPROVED BY THE DISTRICT.

STANDARD HAMMERHEAD TURNAROUND LAYOUT

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



CURB RETURN APPROACH FOR TRUCK TRAFFIC
 REF.: LHTAC FIG. IV, C FROM "MANUAL FOR USE OF PUBLIC RIGHT-OF-WAY STANDARD APPROACH POLICY"

ASSOCIATED HIGHWAY DISTRICTS
 KOOTENAI COUNTY, IDAHO

OPEN-CUT POLICY & CHIP SEALING REQUIREMENTS

This policy applies to any person or firm wishing to Open-Cut a road within the jurisdiction of the Kootenai County Associated Highway Districts.

An open cut may be allowed at the Road Supervisors discretion when one or more of the following circumstances is met.

1. The road is classified as a local road.
2. The road is gravel.
3. The road is scheduled for reconstruction within 1 year.
4. The road has an ADT of 100 or less.
5. It is in the best interest of the public or the Highway District.

The Highway Districts will require any person or firm wishing to open-cut a road within this Highway District to place a bond with the Highway District for 150% of the estimated cost of restoring the road surface plus a fee of \$500.00 plus \$2.40/square yard of disturbed road surface. This fee is to be charged to insure that the proper overlap on all joints is done. When one (1) lane is removed and replaced to centerline, the full road width will be sealed in order to seal all joints, repair any damage to the other lane, and the status of the full width of the road will be maintained.

Payment will be required when application is made to the Highway District for a permit to perform the open-cut.

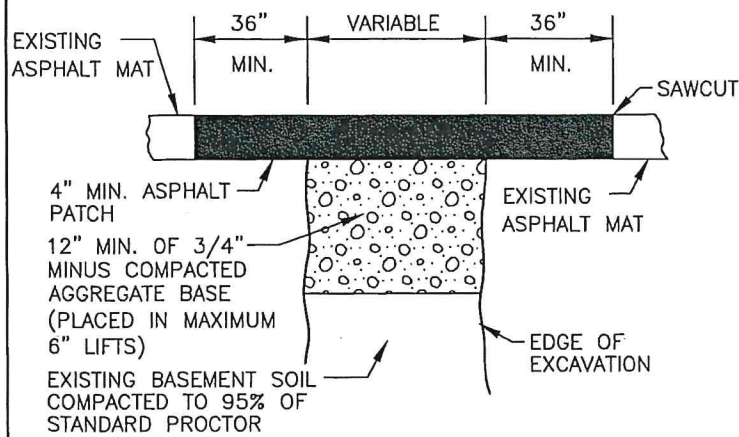
The chip seal on the open-cut roadway will be done the following year during the Highway District's regular chip seal season.

Open-cut repair shall be in accordance with SD-7B.

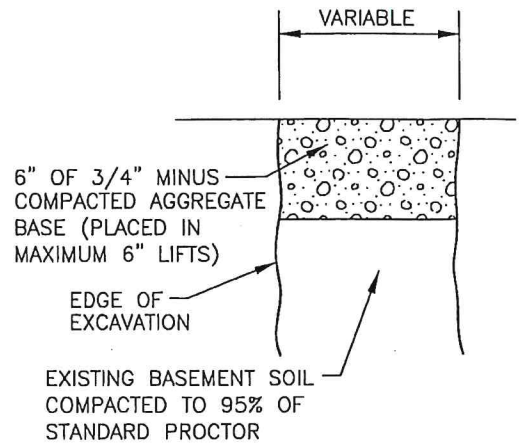
TRANSVERSE ROAD BORE REQUIREMENTS

All roads with one or more of the following criteria shall be bored, no open cuts shall be allowed unless a bore pit of reasonable size cannot be dug or reveals material that is unsuitable for boring, the bore fails to cross the road after 3 attempts or the pipe size is too big for a reasonable bore.

1. The road has a functional classification of a minor collector or above.
2. The pavement is less than 5 years old.
3. The road has been chip sealed within the last 3 years.
4. The road is being used as a detour route.



PAVED SURFACE



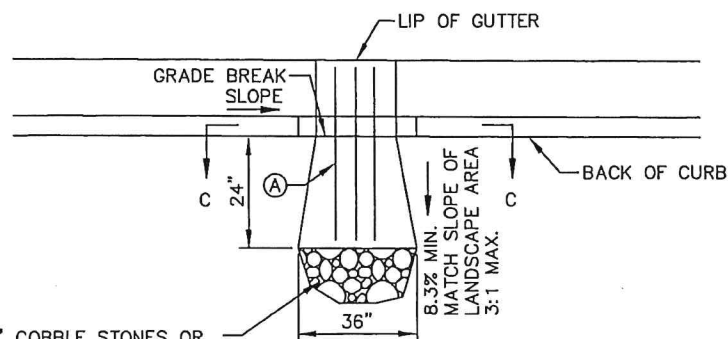
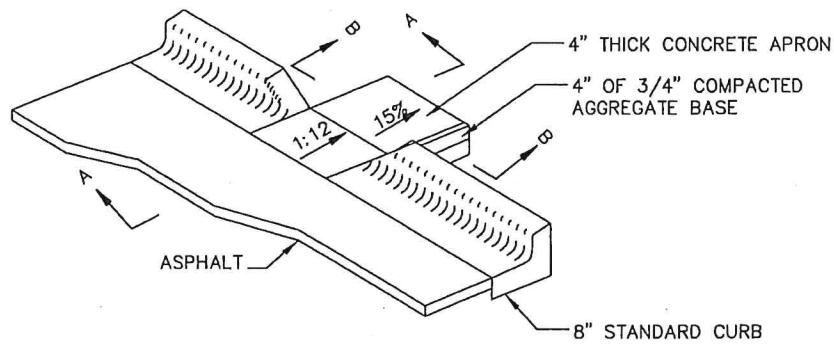
GRAVEL SURFACE

NOTES:

1. FULL DEPTH CONTROLLED DENSITY FILL (CDF) 1 SACK MIX MAY BE REQUIRED FULL DEPTH OF THE TRENCH
2. BACKFILL AT SUBGRADE SHALL NOT SHOW VISIBLE DEFLECTION UNDER 4,000 LB. WHEEL LOAD.
3. WHERE 50% OR MORE OF THE SURFACE AREA OF PAVEMENT HAS BEEN REMOVED OR DAMAGED, FULL WIDTH RESTORATION SHALL BE REQUIRED. ANY STRIP OF REMAINING PAVEMENT LESS THAN TWO FEET IN WIDTH ALONG CURB AND GUTTER OR PAVEMENT EDGE SHALL BE REMOVED AND REPLACED.
4. WHERE STREET SURFACING HAS BEEN IN SERVICE FIVE YEARS OR LESS, THE CONTRACTOR MUST BORE CROSSINGS. STREET CUTS PARALLEL TO CENTERLINE MUST BE APPROVED BY THE HIGHWAY DISTRICT AND WILL REQUIRE RESURFACING USING A PAVING MACHINE. CROSSINGS OF MAJOR COLLECTOR STREETS AND ARTERIALS MAY REQUIRE BORING AT THE DIRECTION OF THE HIGHWAY DISTRICT.
5. STREET SURFACING SHALL BE TACKED TO A NEAT STRAIGHT LINE WITH THE EDGES FREE OF DUST, MOISTURE OR LOOSE MATERIAL.
6. ALL COLD JOINT SURFACES SHALL BE TACKED WITH EMULSION WHICH SHALL HAVE "BROKEN" PRIOR TO PATCHING.
7. MATERIALS AND CONSTRUCTION OF STRUCTURAL REPAIR SHALL CONFORM TO HIGHWAY DISTRICT SPECIFICATIONS.
8. COMPLETED PATCH SHALL NOT DEVIATE FROM EXISTING SURFACE MORE THAT 0.03 FT. /10 FT. IN PROFILE OR 0.05 FT. / 10 FT. IN CROSS-SECTION WHEN MEASURED WITH A 10 FT. STRAIGHT EDGE.
9. COMPLETED PATCH SHALL NOT POND WATER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF STREET REPAIR FOR TWO YEARS AFTER INSTALLATION. THE BOND SHALL REMAIN IN PLACE FOR THIS TWO YEAR TIME PERIOD.
11. ALL MATERIAL TO BE COMPACTED TO AT LEAST 95% OF OPTIMUM DENSITY PER APPROPRIATE AASHTO STANDARD PROCTOR TEST RESULT.
12. CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO TESTS ON THE TRENCH BACKFILL LAYERS AND ONE TEST ON THE 3/4" MINUS AGGREGATE BASE.

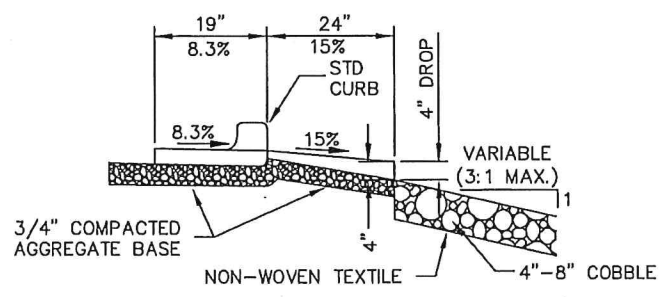
ROAD CUTS AND SURFACE REPAIRS

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

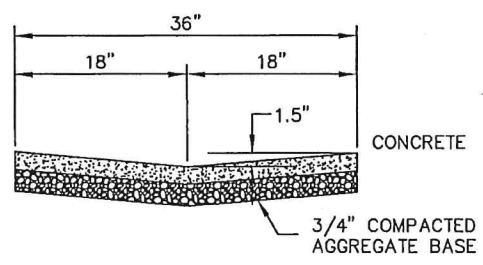


LINE WITH 4" TO 8" COBBLE STONES OR LARGER AGGREGATE DRAIN ROCK FROM EDGE OF THE APRON TO 1' BEYOND THE FLOW LINE OF THE RETENTION SWALE.

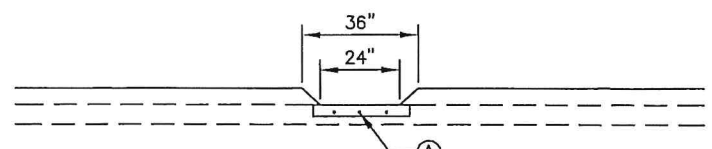
PLAN
N.T.S.



SECTION A-A
N.T.S.



SECTION B-B (PARTIAL)
N.T.S.



SECTION C-C
N.T.S.

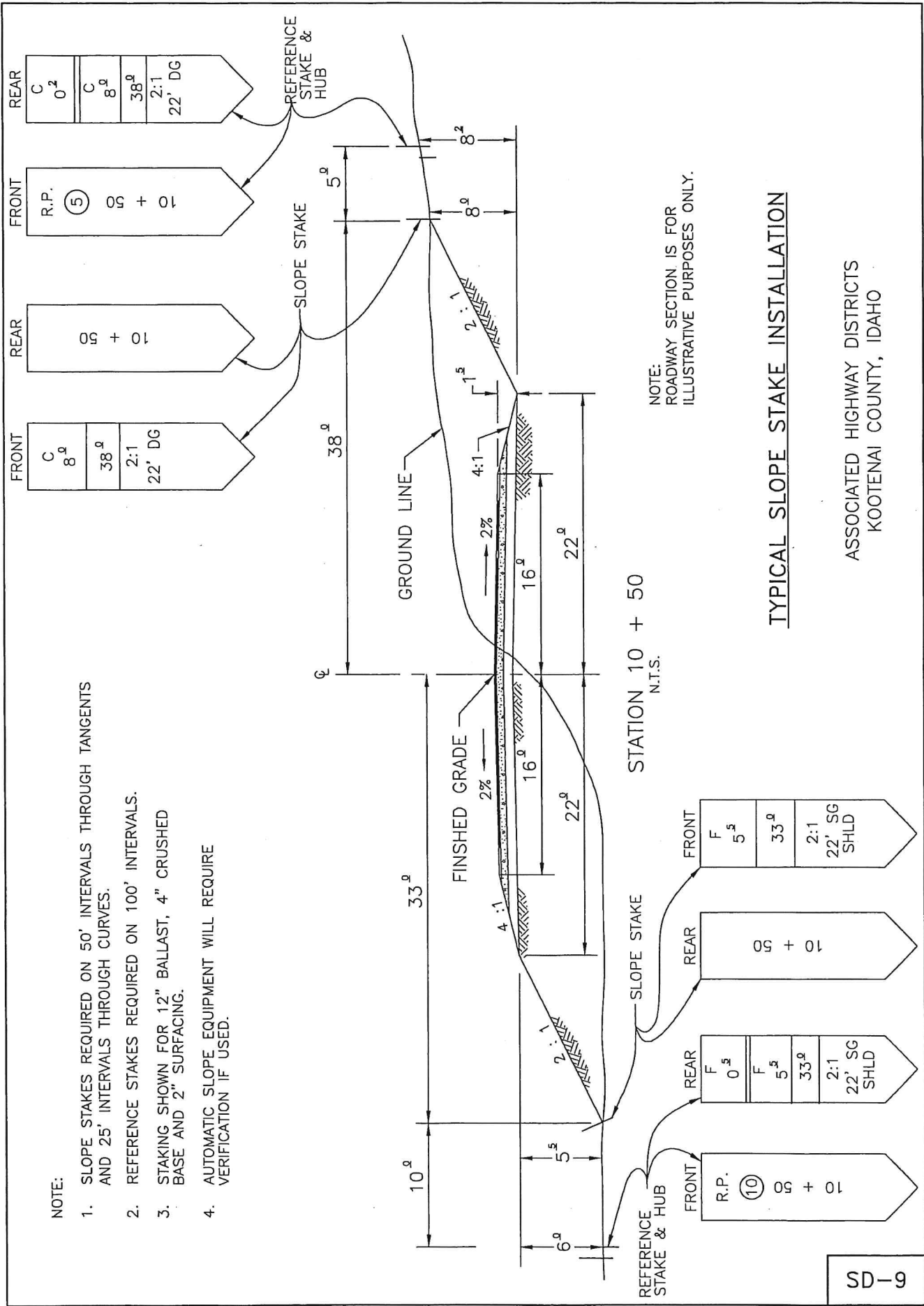
NOTES:

- (A) 3 # 4 BARS AT MID DEPTH OF CONCRETE SPACE EQUALLY ACROSS CURB OPENING.
- (B) REQUIRED WITH INFILTRATION SWALE DESIGN.
- (C) CONCRETE APRON SHALL REMAIN FREE OF ALL OBSTRUCTIONS INCLUDING GRASS AND OTHER VEGETATION THAT MAY BE USED IN CONJUNCTION WITH LANDSCAPING OF SWALE OR RETENTION BASIN.
- (D) ADOPTED FROM IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, 2012

DRAINAGE CURB CUT
ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

NOTE:

1. SLOPE STAKES REQUIRED ON 50' INTERVALS THROUGH TANGENTS AND 25' INTERVALS THROUGH CURVES.
2. REFERENCE STAKES REQUIRED ON 100' INTERVALS.
3. STAKING SHOWN FOR 12" BALLAST, 4" CRUSHED BASE AND 2" SURFACING.
4. AUTOMATIC SLOPE EQUIPMENT WILL REQUIRE VERIFICATION IF USED.

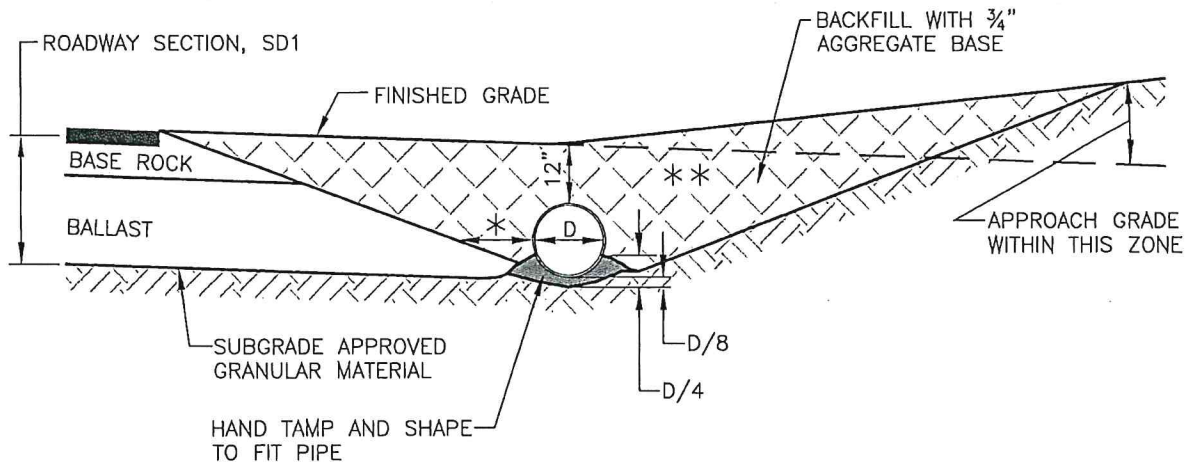


NOTE:
ROADWAY SECTION IS FOR
ILLUSTRATIVE PURPOSES ONLY.

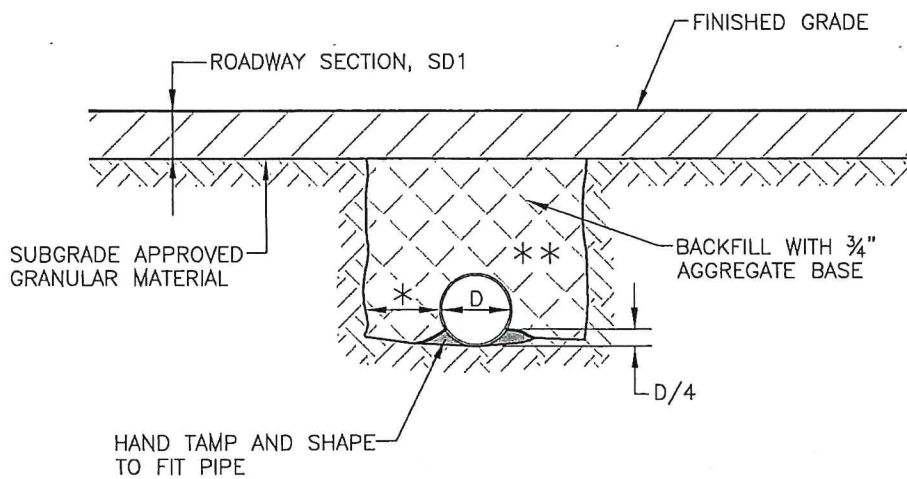
STATION 10 + 50
N.T.S.

TYPICAL SLOPE STAKE INSTALLATION

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



ON SUBGRADE



BELOW SUBGRADE

NOTE:

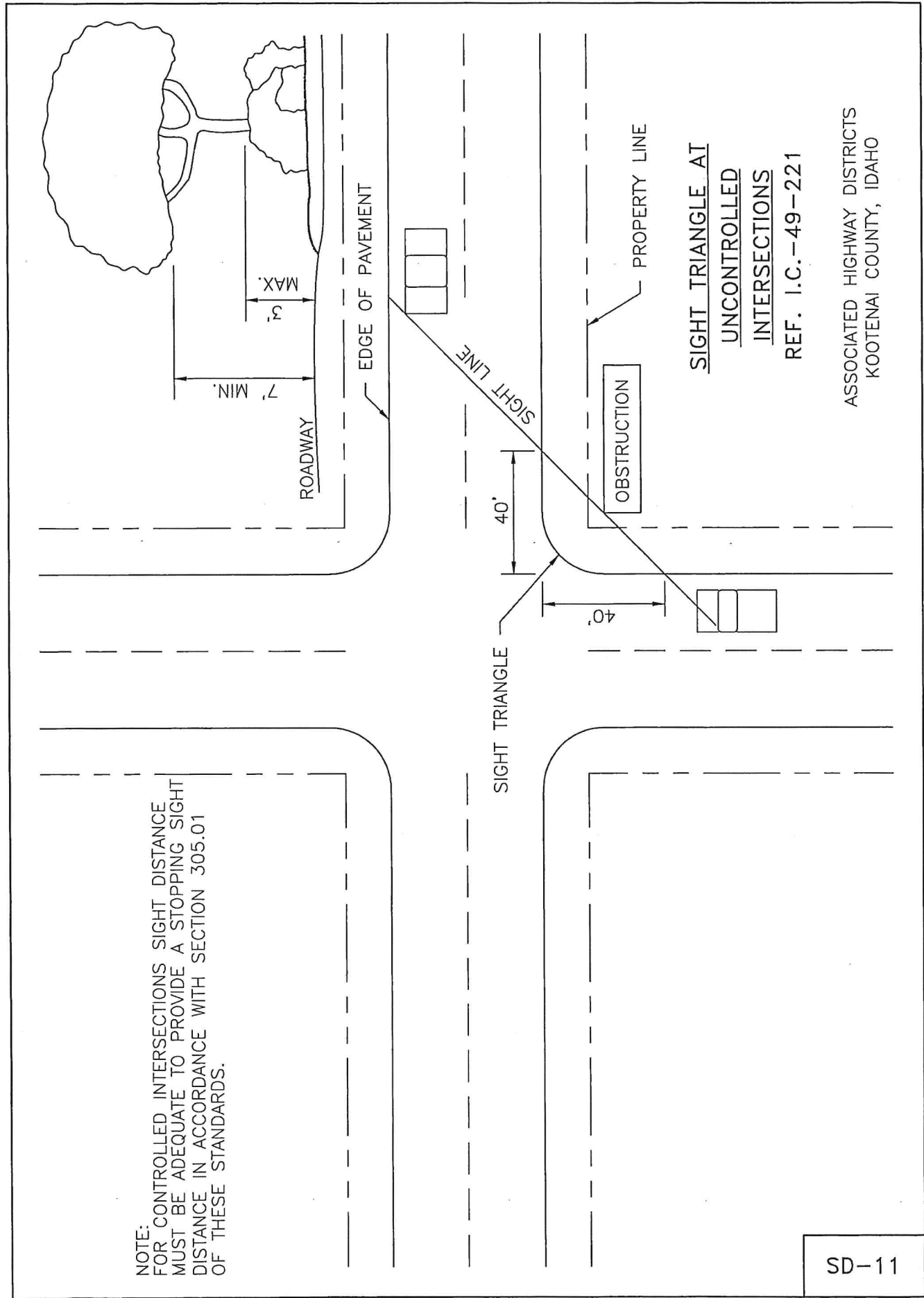
- * D OR 12" WHICHEVER IS GREATER
- ** MECHANICAL COMPACTED BACKFILL. PLACED IN 6" LAYERS. BASE MATERIAL CONFORMING TO SUB-SECTION 404.01.

TYPICAL CULVERT INSTALLATION

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

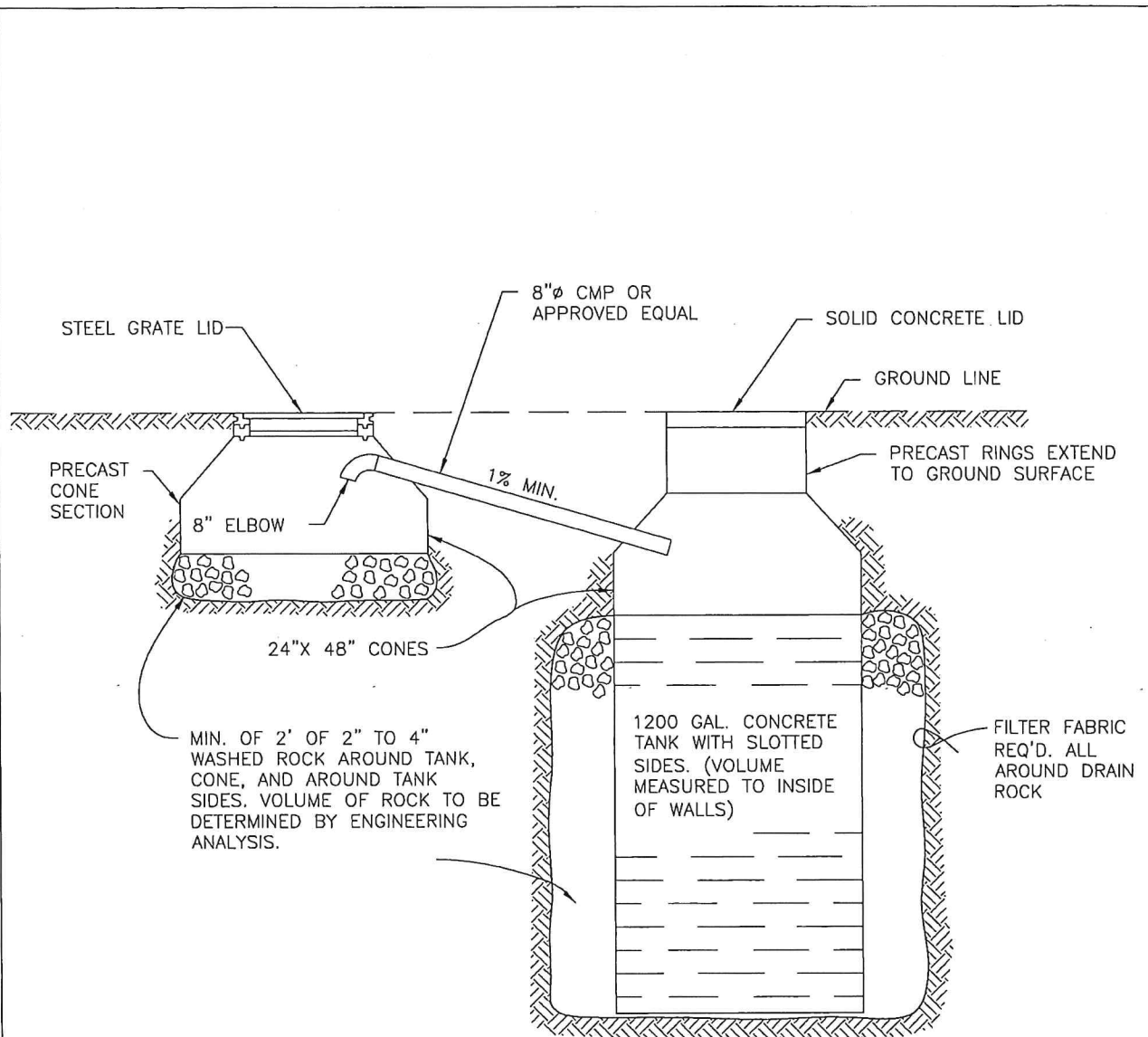
NOTE:
FOR CONTROLLED INTERSECTIONS SIGHT DISTANCE
MUST BE ADEQUATE TO PROVIDE A STOPPING SIGHT
DISTANCE IN ACCORDANCE WITH SECTION 305.01
OF THESE STANDARDS.



SIGHT TRIANGLE AT
UNCONTROLLED
INTERSECTIONS

REF. I.C.-49-221

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



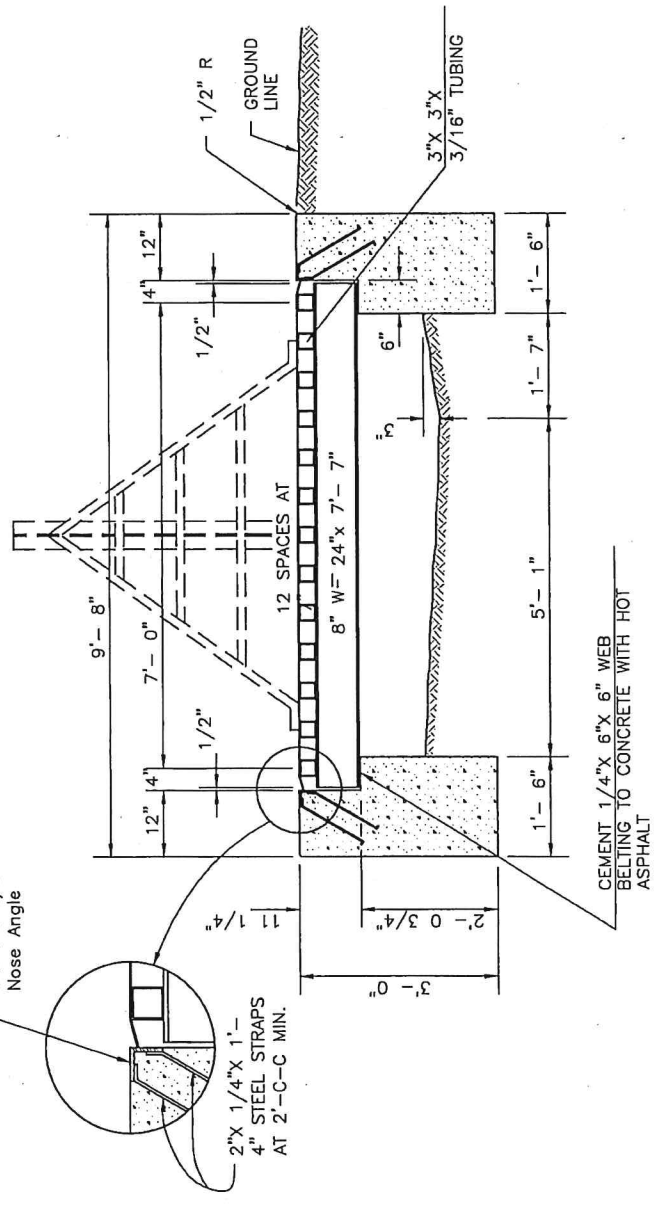
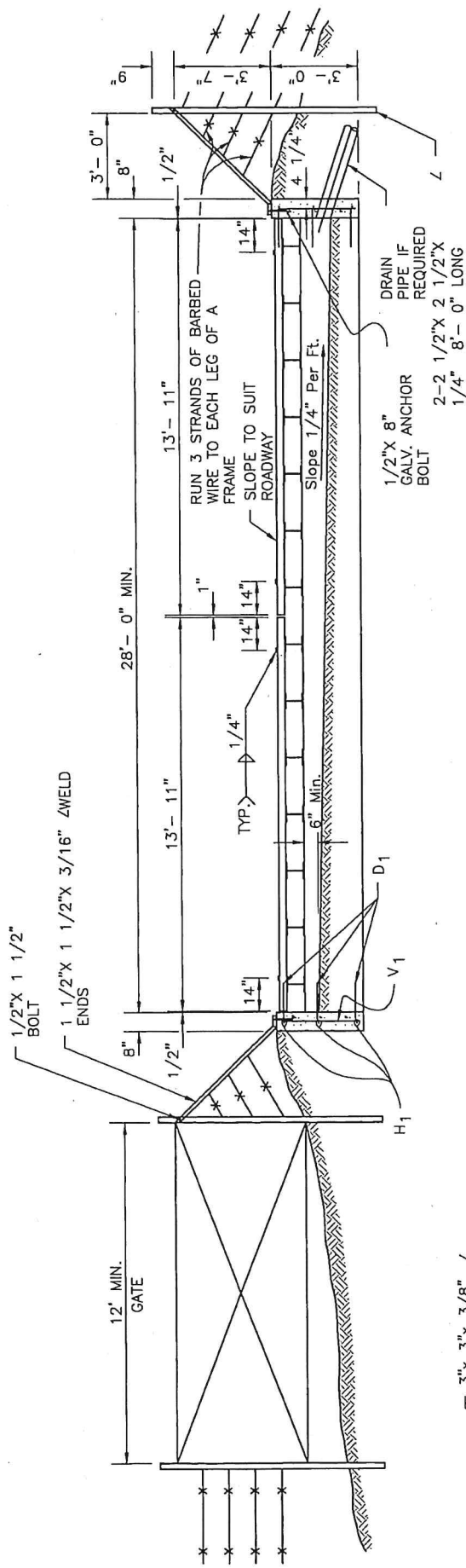
NOTES:

① DRY WELL INSTALLATION MAY REQUIRE A PERMIT AND/OR REGISTERING AT PANHANDLE HEALTH DISTRICT.

CATCH BASIN & DRYWELL INSTALLATION

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

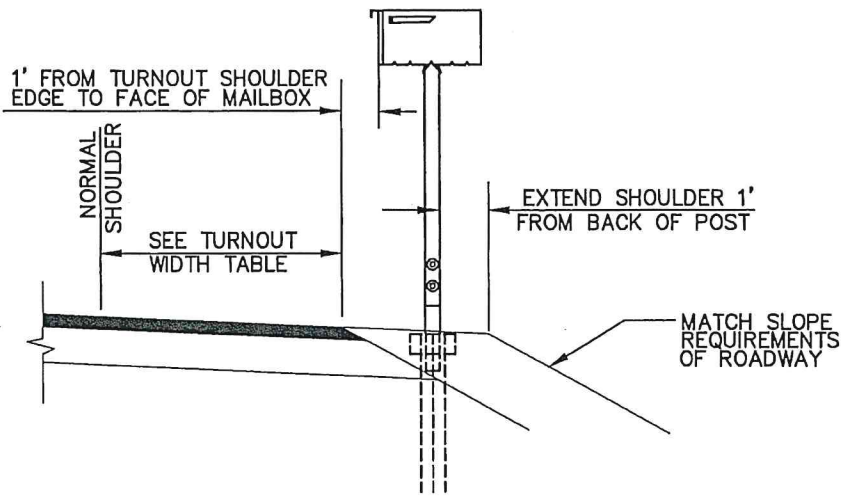


REINFORCEMENT STEEL			
MARK	LOCATION	SIZE	TOTAL LENGTH REQ'D
V ₁	END WALLS	4	2'-8"
H ₁	END WALLS	6	9'-4"
D ₁	DOWELS	4	1'-4"

80 L.F. NO. 4 BARS AT .668 LB./FT.= 53 LB.
 56 L.F. NO. 6 BARS AT 1.502 LB./FT.= 85 LB.

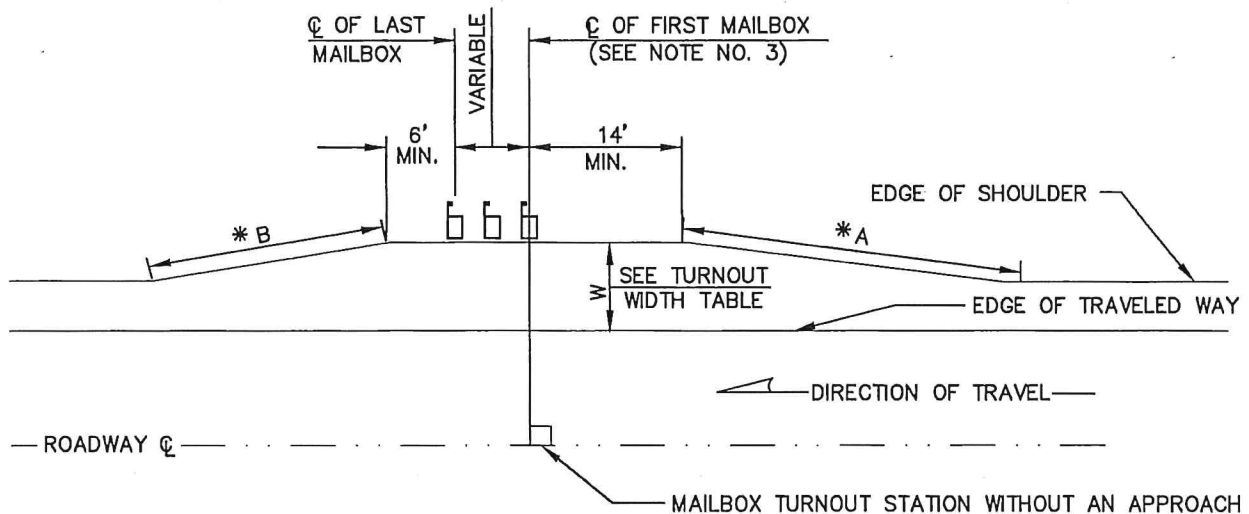
CATTLE GUARD
N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO



MAILBOX SLOPE TYPICAL

N.T.S.



*A = 4:1 and *B = 2.5:1 TAPERS:
 FOR ROADS WITH SPEEDS OF 40 MPH OR LESS, OR AN ADT OF 400 OR LESS.
 *A = 20:1 and *B = 12:1 TAPERS:
 FOR ROADS WITH SPEEDS GREATER THAN 40 MPH OR AN ADT GREATER THAN 400

<u>TURNOUT WIDTH TABLE</u>		
* (SEE NOTE NO. 2)		
SPEED/ADT	PREFERRED	MINIMUM
55 / >10000	>12'	12'
55 / 1500-10000	12'	10'
55 / 100-1500	10'	8'
55 / <100	8'	8'
<40 / <50	8'	8'

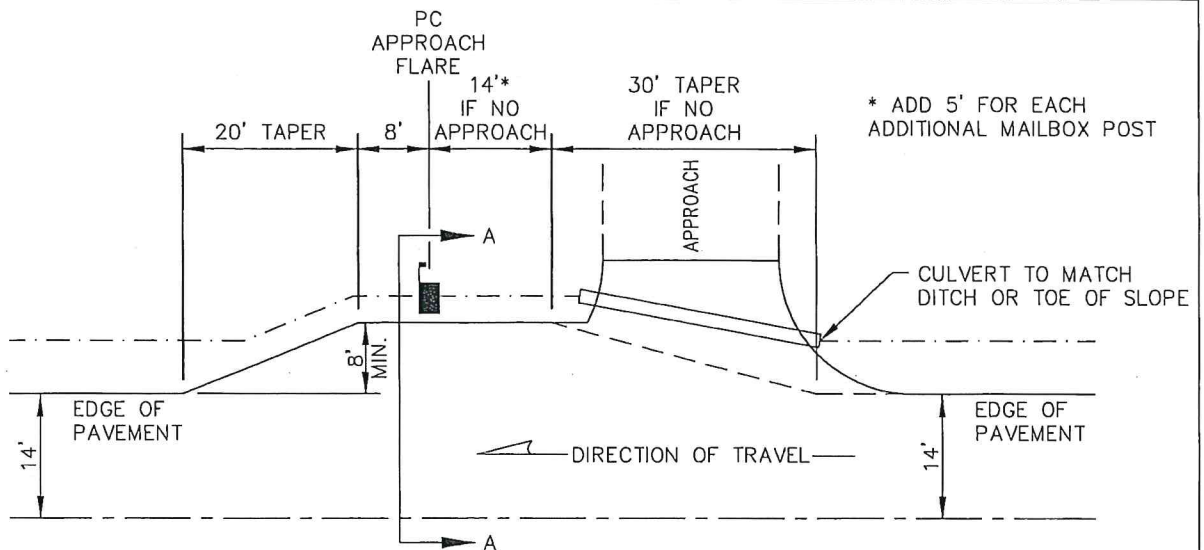
1. WHEN USING THE TURNOUT WIDTH TABLE THE "SPEED" (MPH) IS THE MAXIMUM POSTED ROADWAY SPEED. THE "ADT" IS THE AVERAGE DAILY TRAFFIC.

2. THE BALLAST REQUIREMENTS OF MAILBOX TURNOUTS SHALL BE AS THE ADJACENT ROADWAY SECTION.

3. REFER TO THE UNITED STATES POST OFFICE STANDARDS FOR MAILBOX INSTALLATION.

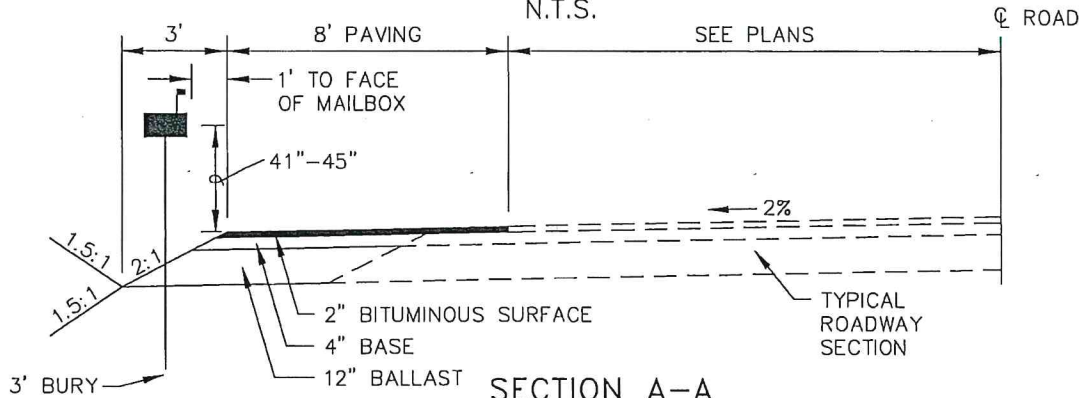
MAILBOX TURNOUT DETAIL

N.T.S.



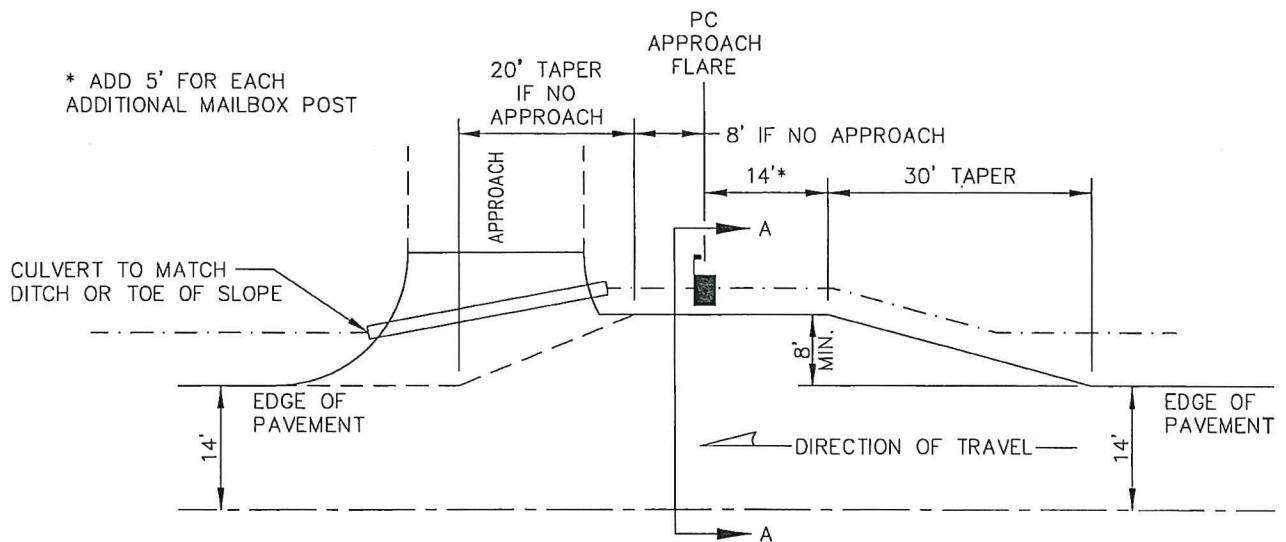
MAILBOX TURNOUT (FAR SIDE)

N.T.S.



SECTION A-A

N.T.S.



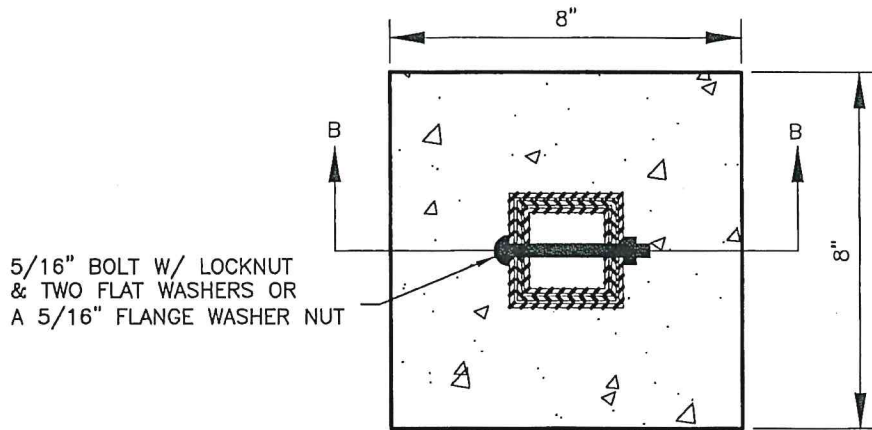
NOTES:

1. STATION SHOWN ON THE PLANS IS TO MAILBOX OR CENTER OF MULTIPLE MAILBOXES.
2. MAILBOX POST AND MOUNTINGS TO CONFORM TO IDAHO TRANSPORTATION DEPARTMENT STANDARD DRAWING H-5-A, H-5-B AND H-5-C AS APPLICABLE.
3. DRAINAGE TO BE CARRIED AROUND TURNOUTS UNLESS CULVERTS ARE INDICATED ON THE PLANS.
4. CUT AND FILL SLOPES OFF BACK OF TURNOUTS TO BE 1.5:1.
5. CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS TO MAILBOXES DURING CONSTRUCTION.

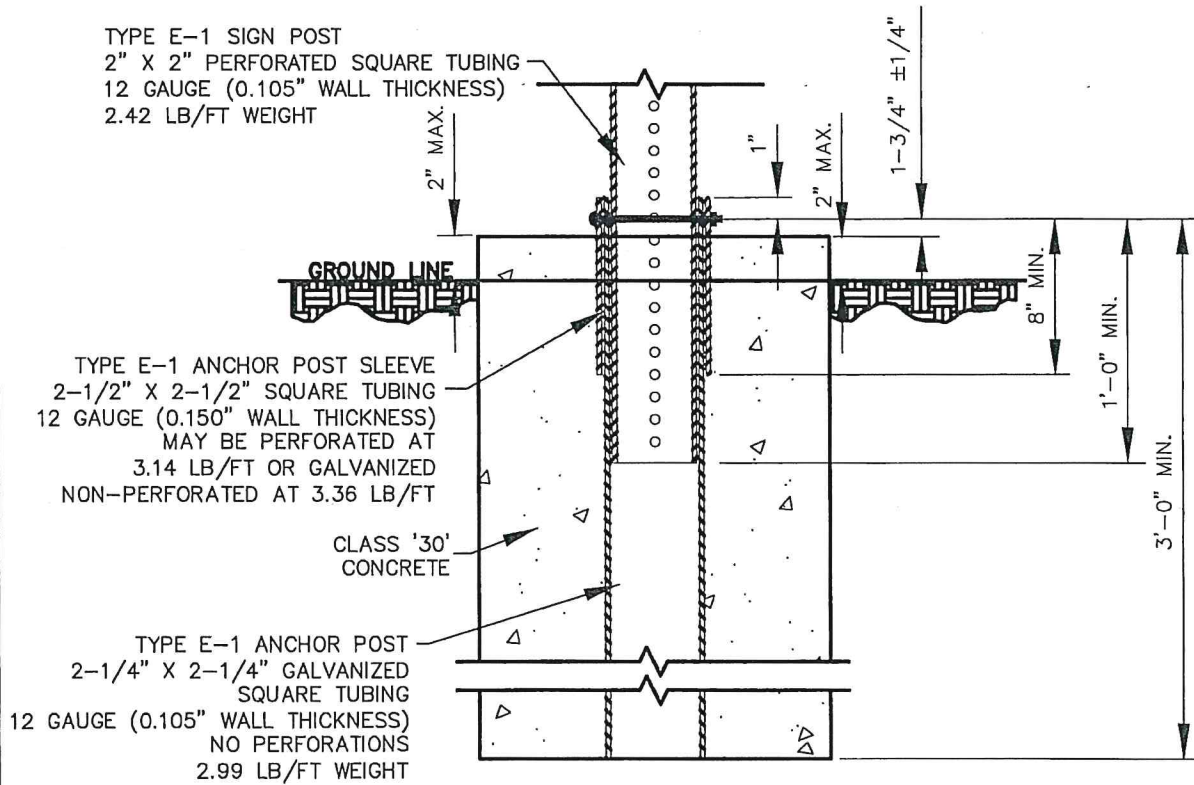
MAILBOX TURNOUT (NEAR SIDE)

N.T.S.

SD-14A



5/16" BOLT W/ LOCKNUT
& TWO FLAT WASHERS OR
A 5/16" FLANGE WASHER NUT



TYPE E-1 SIGN POST
2" X 2" PERFORATED SQUARE TUBING
12 GAUGE (0.105" WALL THICKNESS)
2.42 LB/FT WEIGHT

TYPE E-1 ANCHOR POST SLEEVE
2-1/2" X 2-1/2" SQUARE TUBING
12 GAUGE (0.150" WALL THICKNESS)
MAY BE PERFORATED AT
3.14 LB/FT OR GALVANIZED
NON-PERFORATED AT 3.36 LB/FT

CLASS '30'
CONCRETE

TYPE E-1 ANCHOR POST
2-1/4" X 2-1/4" GALVANIZED
SQUARE TUBING
12 GAUGE (0.105" WALL THICKNESS)
NO PERFORATIONS
2.99 LB/FT WEIGHT

TYPE E-1 SIGN POST

SECTION B-B

NOTE:

- 1.) TYPE E-1 POST ANCHOR SLEEVES SHALL BE INSTALLED SO THAT THE HOLES WILL ALIGN AND THE TOP IS FLUSH WITH THE SIGN POST ANCHOR.
- 2.) TYPE E-1 POST ANCHOR SLEEVES SHALL BE INSTALLED SO THAT THE TRAFFIC SIGN (ONCE MOUNTED) SHALL MEET ITS INTENDED INSTALLATION REQUIREMENT.