(CITY'S NAME OF PROJECT)

START DATE: (MONTH 20XX)

COMPLETION DATE: (MONTH 20XX)

OWNER:
CITY AND BOROUGH OF SITKA
100 LINCOLN ST.
747-1804

CONTRACTOR:
(CONTACT
COMPANY NAME
###-###-####)

DESIGNER:
(COMPANY NAME)

FUNDED BY (EXAMPLES):

(LAND AND WATER CONSERVATION FUND)
(ALASKA CLEAN WATER FUND)
(RASMUSON FOUNDATION)
(MEN'S/ WOMEN'S SOFTBALL ASSOC.)
(CITY AND BOROUGH OF SITKA)

NOTES:

ALL ITEMS IN PARENTHESIS' ARE EXAMPLE ITEMS AND WILL CHANGE PER PROJECT.

SIGN DIMENSIONS: 4' X 8' X 1/8" ALUMINUM PANEL

LETTERS:
TITLE= 2 1/2"
INFORMATION= 1 1/4"

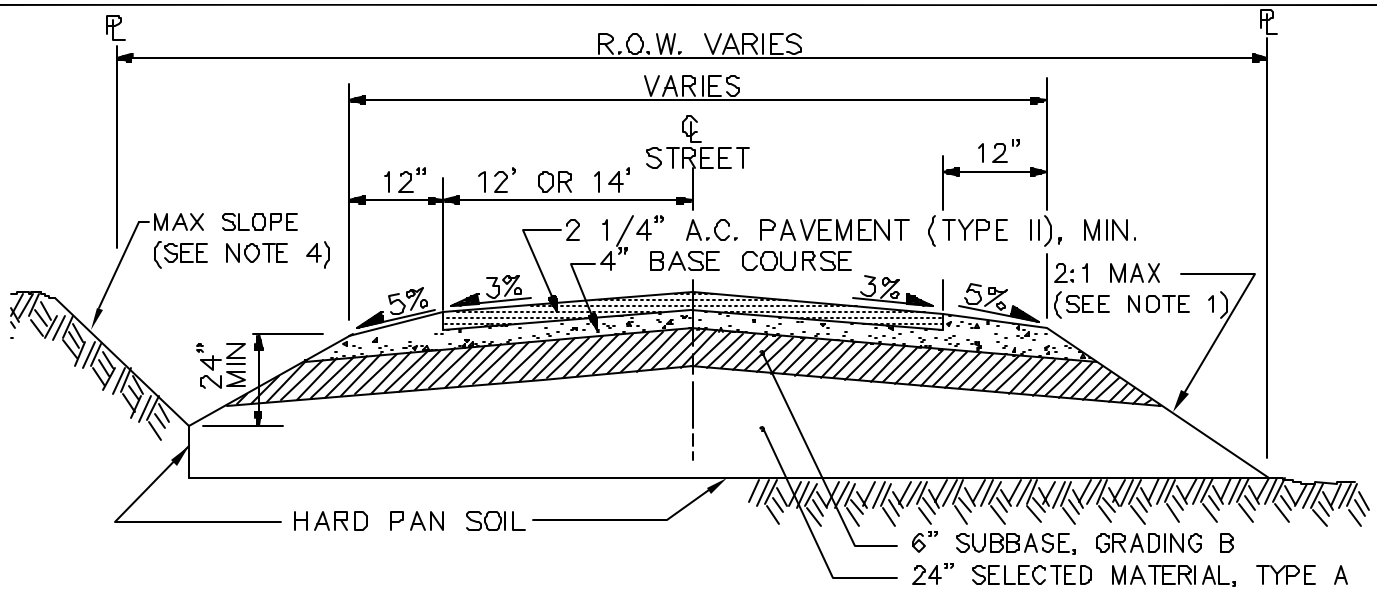
EMBLEM= 2' DIA.

SCALE: NTS
APPROVED: RAR
REVISED: 1/18/08

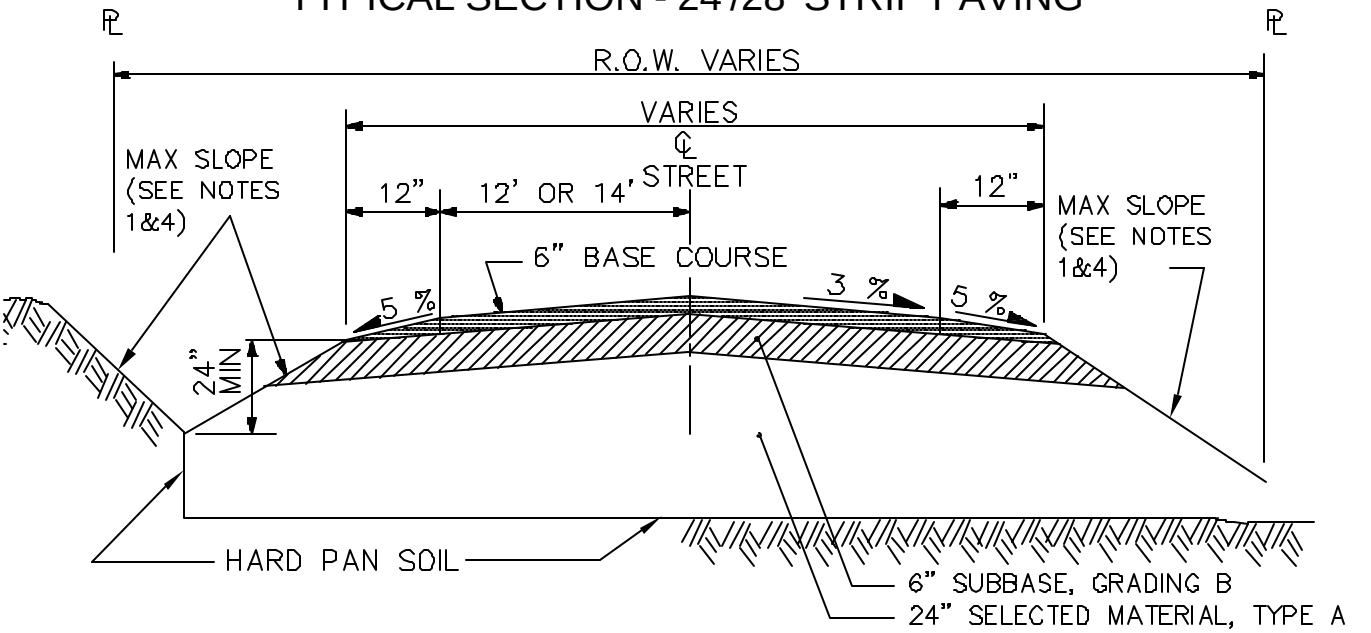
CONSTRUCTION SIGN DETAIL

SECTION# 15.02

DETAIL # 15-1



TYPICAL SECTION - 24'/28' STRIP PAVING



TYPICAL SECTION - 24'/28' GRAVEL STREET

NOTES:

1. MATERIAL TO BE PLACED OR REMOVED AND GRADED IN A NEAT MANNER FROM EXCAVATION LIMITS TO EXISTING ELEVATION AT PROPERTY LINE AS DIRECTED BY THE ENGINEER.
2. EXCAVATE ROAD PRISM MIN. OF 36" OR DEEPER AS REQUIRED TO REACH HARD PAN SOIL
3. UNLESS OTHERWISE APPROVED, THE ℄ OF STREET WILL BE THE ℄ OF R.O.W.
4. CUT SLOPES: IN SOIL USE 2:1 MAX., IN ROCK USE 0.5:1 MAX.
5. MINIMUM PAVEMENT THICKNESS MAY BE INCREASED AT ENGINEER'S DESCRETION DEPENDENT UPON VARIABLES SUCH AS TRAFFIC FREQUENCY, WHEEL AND AXLE LOADING, SUBGRADE INTEGRITY, ETC..

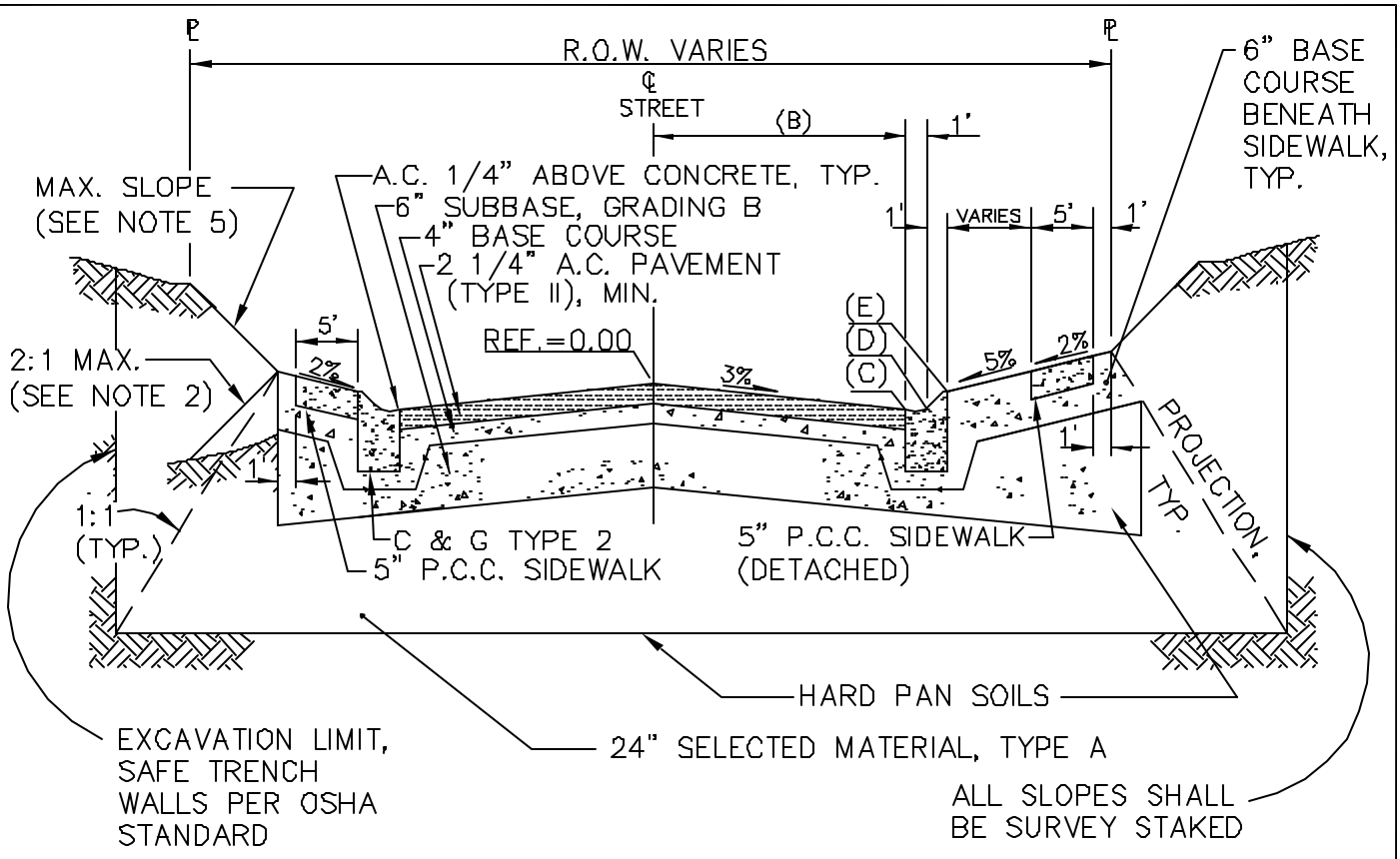
CITY AND BOROUGH OF SITKA

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

TYPICAL SECTIONS FOR 24'/28' STRIP PAVING AND GRAVEL STREETS

SECTION# 20.01 THRU# 20.14

DETAIL # 20–1



PAVEMENT WIDTH	(B) PAVEMENT	(C) LIP C&G	(D) F.L. C&G	(E) BACK C&G
24'	12'	−0.36	−0.44	−0.19
26'	13'	−0.39	−0.47	−0.22
29'	14.5'	−0.44	−0.52	−0.27
32'	16'	−0.48	−0.56	−0.31
36'	18'	−0.54	−0.62	−0.37

NOTES:

1. ALL DIMENSIONS AND ELEVATIONS AS SHOWN ON THIS DRAWING ARE TYPICAL BUT MAY VARY IN SPECIFIC INSTANCES AS SHOWN ON PLAN–PROFILE DRAWINGS OR AS DETERMINED BY THE ENGINEER.
2. MATERIAL TO BE PLACED OR REMOVED AND GRADED IN A NEAT MANNER FROM EXCAVATION LIMITS TO EXISTING ELEVATION AT PROPERTY LINE AS DIRECTED BY THE ENGINEER.
3. EXCAVATE ROAD PRISM MIN. OF 36", OR DEEPER AS REQ'D TO REACH HARD PAN SOIL.
4. UNLESS OTHERWISE APPROVED THE ℄ OF STREET WILL BE THE ℄ OF R.O.W.
5. CUT SLOPES: IN SOIL USE 2:1 MAX., IN ROCK USE 0.5:1 MAX.
6. MINIMUM PAVEMENT THICKNESS MAY BE INCREASED AT ENGINEER'S DESCRETION DEPENDENT UPON VARIABLES SUCH AS TRAFFIC FREQUENCY, WHEEL AND AXLE LOADING, SUBGRADE INTEGRITY, ETC..

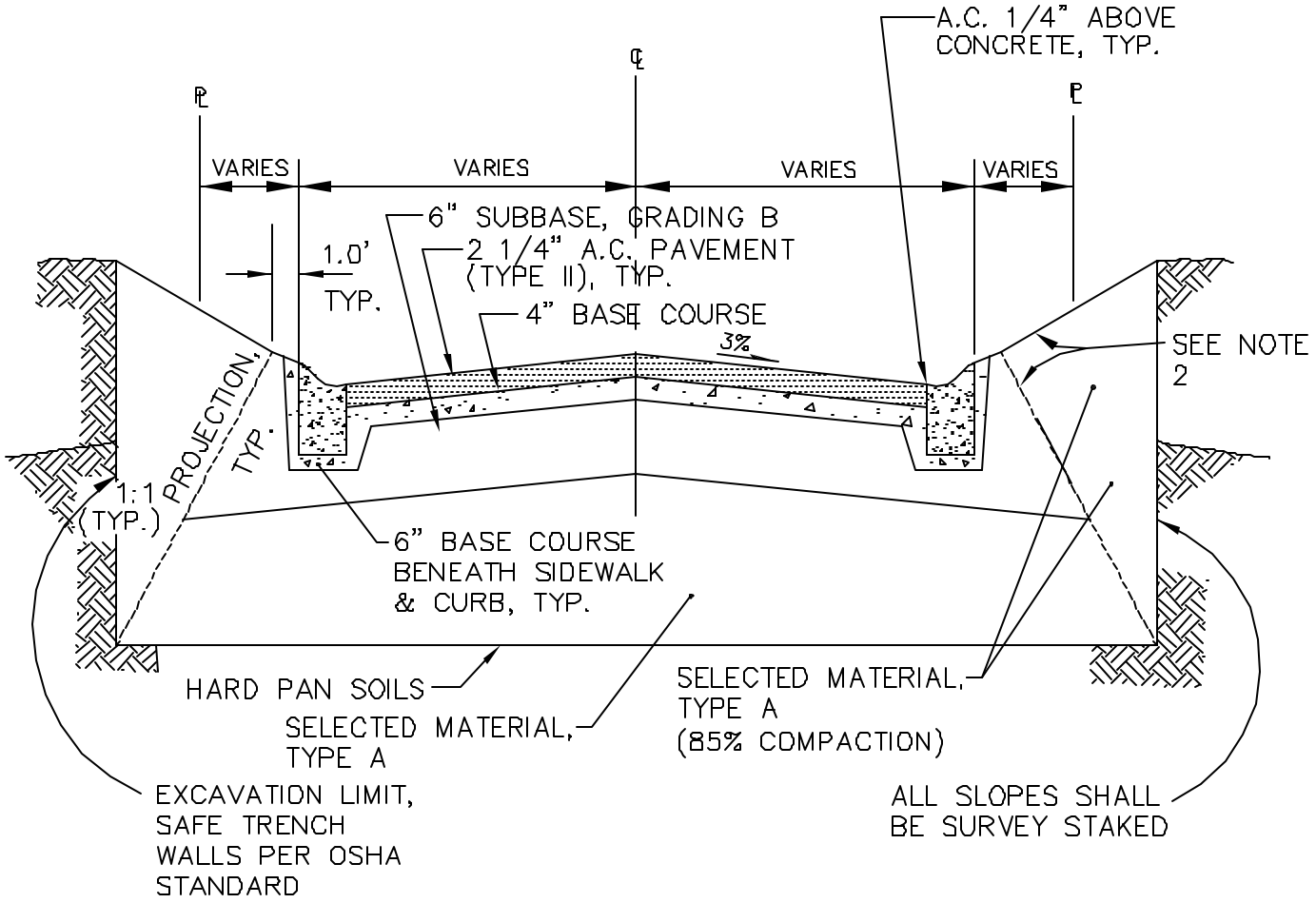
CITY AND BOROUGH OF SITKA

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

24', 26', 29', 32' AND 36' STREETS

SECTION# 20.01 THRU# 20.14

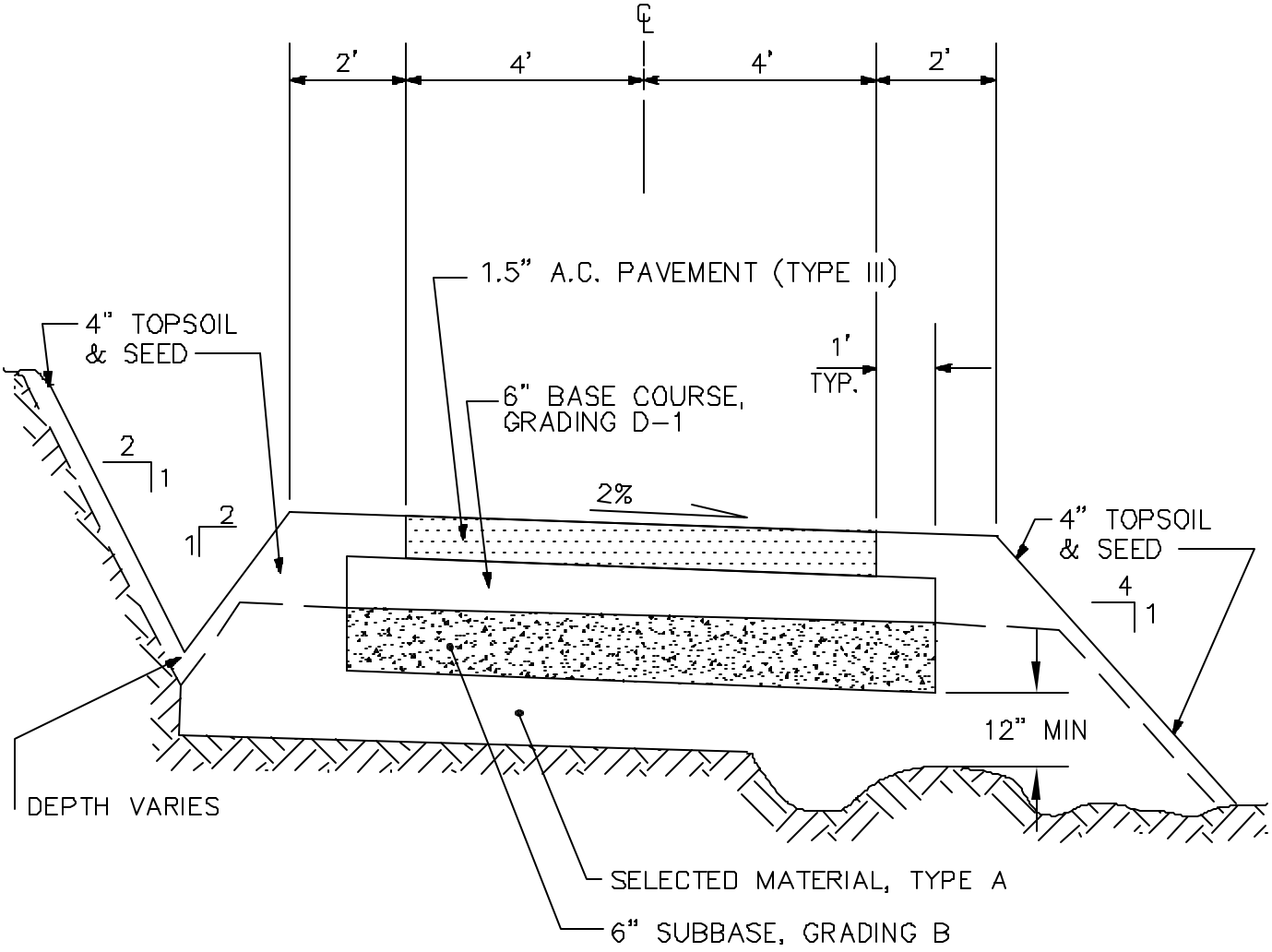
DETAIL # 20−2



NOTES:

1. ALL DIMENSIONS & ELEVATIONS AS SHOWN ON THIS DRAWING ARE TYPICAL BUT MAY VARY IN SPECIFIC INSTANCES AS SHOWN ON THE PLAN–PROFILE DRAWINGS OR AS DETERMINED BY THE ENGINEER.
2. MATERIAL TO PLACED OR REMOVED & GRADED IN A NEAT MANNER FROM EXCAVATION LIMITS TO EXISTING ELEVATION AT PROPERTY LINE AS DIRECTED BY THE ENGINEER (MAX. 2:1 CUT & FILL SLOPES IN SOIL, MAX. 0.5:1 CUT SLOPE IN ROCK)
3. DEPTH OF EXCAVATION TO BE DETERMINED BY THE ENGINEER.
4. SEE APPLICABLE STANDARD DETAIL FOR SPECIFIC STREET DIMENSIONS.
5. MINIMUM PAVEMENT THICKNESS MAY BE INCREASED AT ENGINEER'S DESCRETION DEPENDENT UPON VARIABLES SUCH AS TRAFFIC FREQUENCY, WHEEL AND AXLE LOADING, SUBGRADE INTEGRITY, ETC..

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL SECTION DEEP EXCAVATION	SECTION# 20.01 THRU# 20.14 DETAIL # 20–3



NOTES:

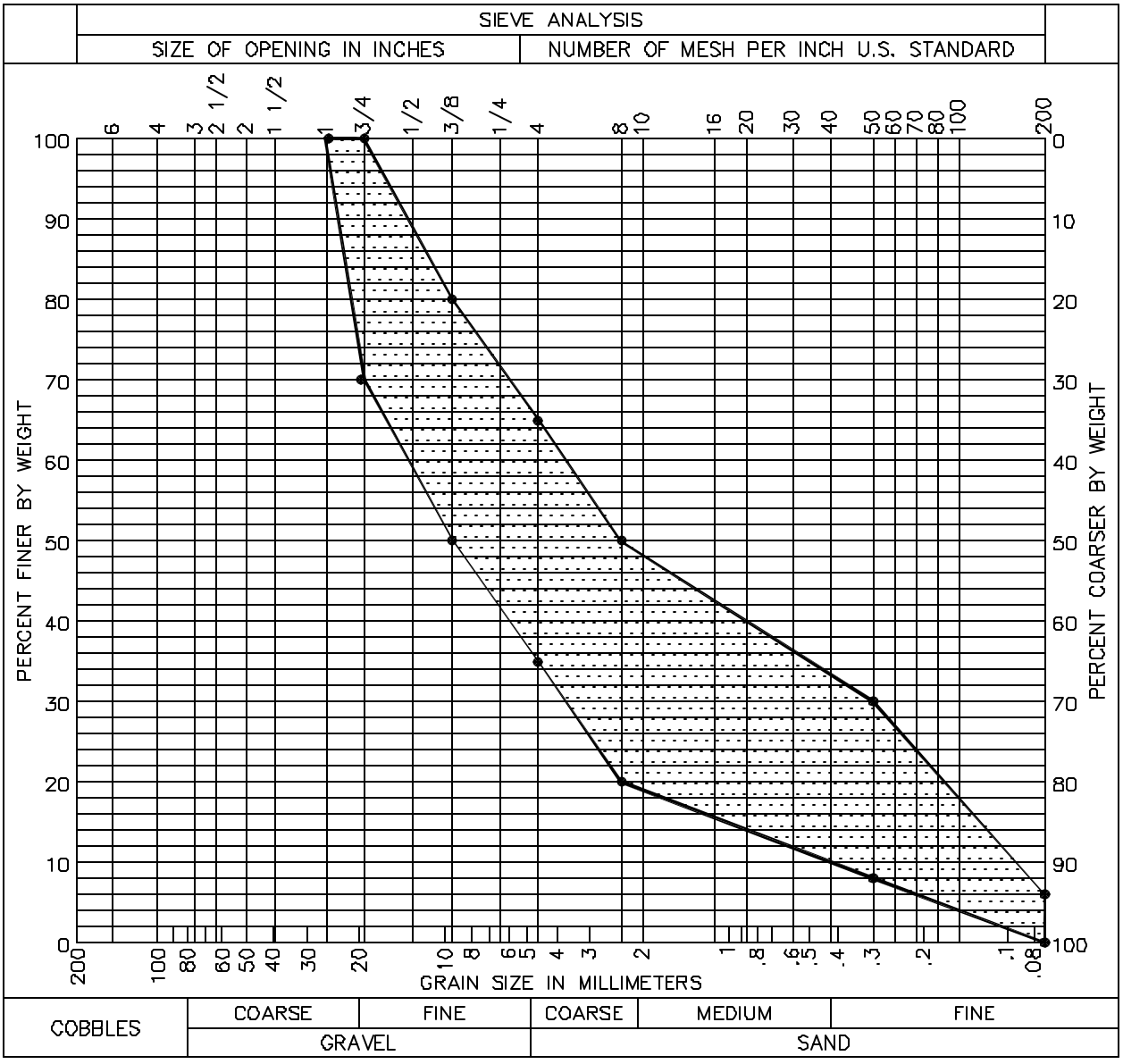
1. DEPTH OF CLASSIFIED FILL OR BACKFILL TO BE DETERMINED BY THE ENGINEER.
2. DEPTH OF DITCH SHALL BE AS NECESSARY FOR POSITIVE DRAINAGE AS DIRECTED BY THE ENGINEER.
3. CROSS CULVERTS SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL BIKE TRAIL	SECTION# 20.01 THRU# 20.14 DETAIL # 20-4

GRADING LIMITS

U.S. STANDARD SIEVE	CUMULATIVE % PASSING BY WEIGHT
1"	100
3/4"	70–100
3/8"	50–80
#4	35–65
#8	20–50
#40	8–30
#200	*0–6

* IN ADDITION TO THE GRADING LIMITS LISTED ABOVE, THE FRACTION OF MATERIAL PASSING THE #200 SIEVE SHALL NOT BE GREATER THAN 75% OF THAT FRACTION PASSING THE #50 SIEVE.



SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

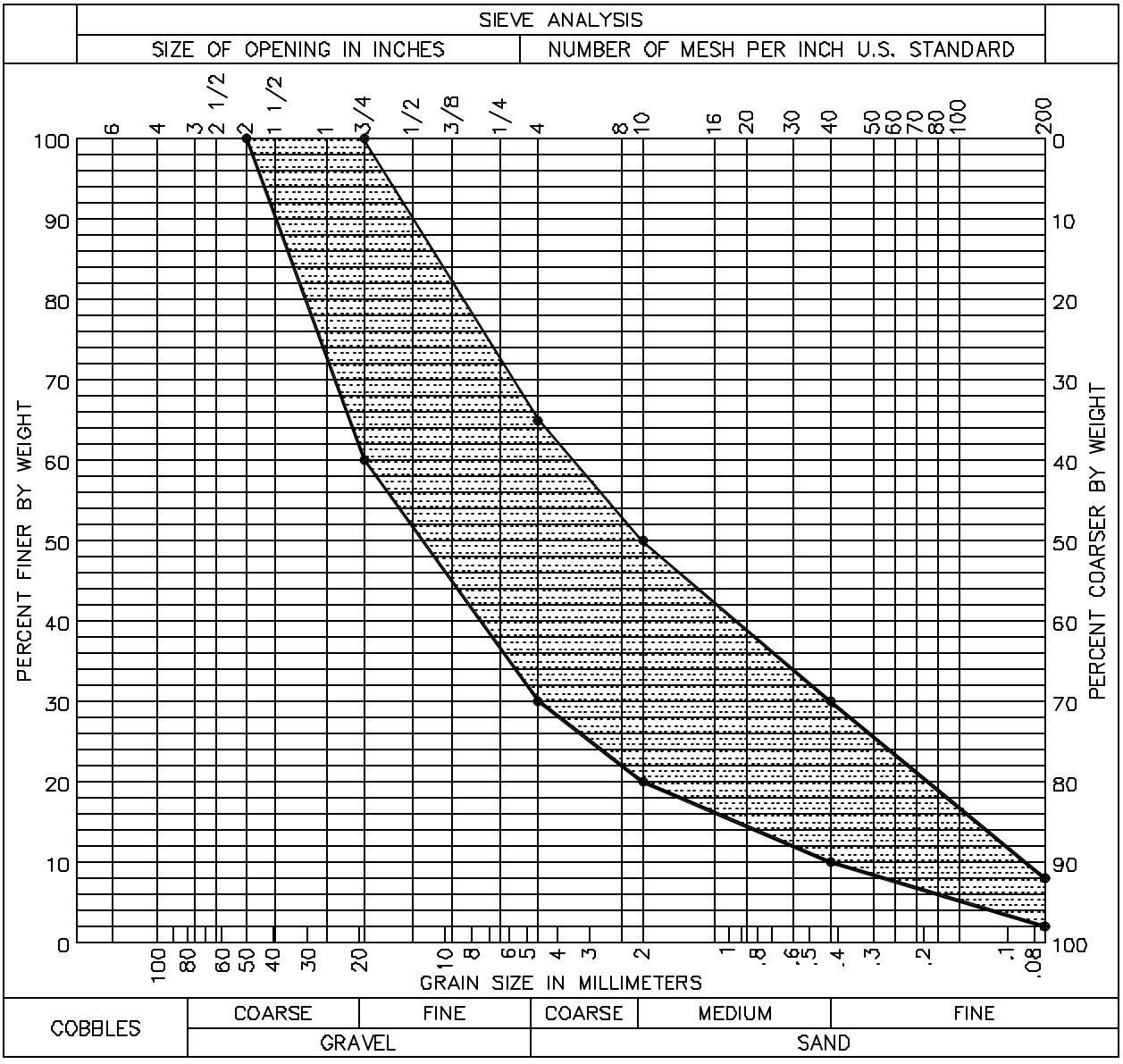
BEDDING MATERIAL AND BASE COURSE, GRADING D-1

SECTION 20.06
DETAIL 20–5

GRADING LIMITS

U.S. STANDARD SIEVE	CUMULATIVE % PASSING BY WEIGHT
2"	100
3/4"	60–100
#4	30–65
#10	20–50
#40	10–30
#200	*2–6

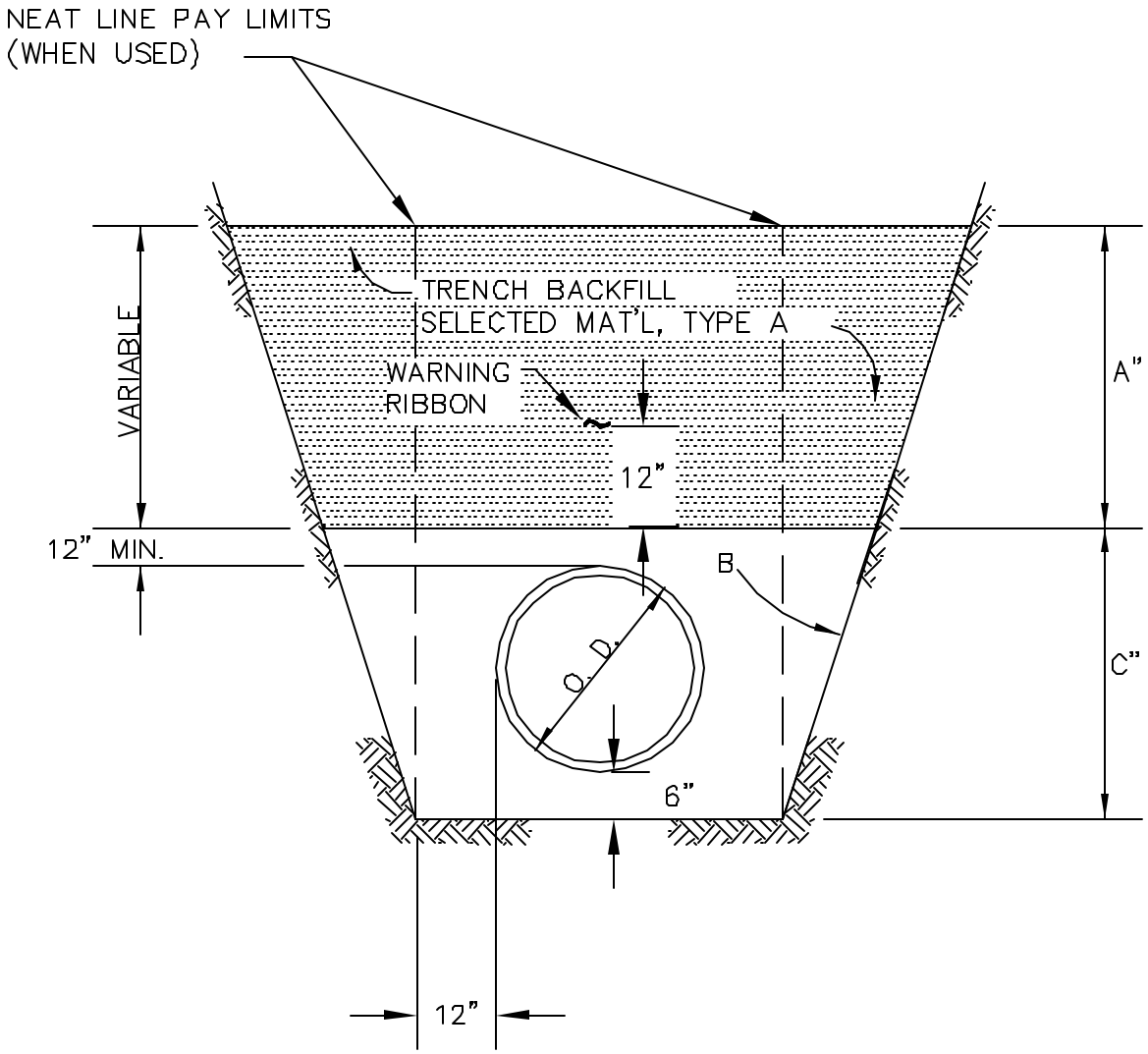
* IN ADDITION TO THE GRADING LIMITS LISTED ABOVE, THE FRACTION OF MATERIAL PASSING THE #200 SIEVE SHALL NOT BE GREATER THAN 15% OF THAT FRACTION PASSING THE #4 SIEVE.



SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

SUBBASE, GRADING B
CLASSIFIED FILL & BACKFILL

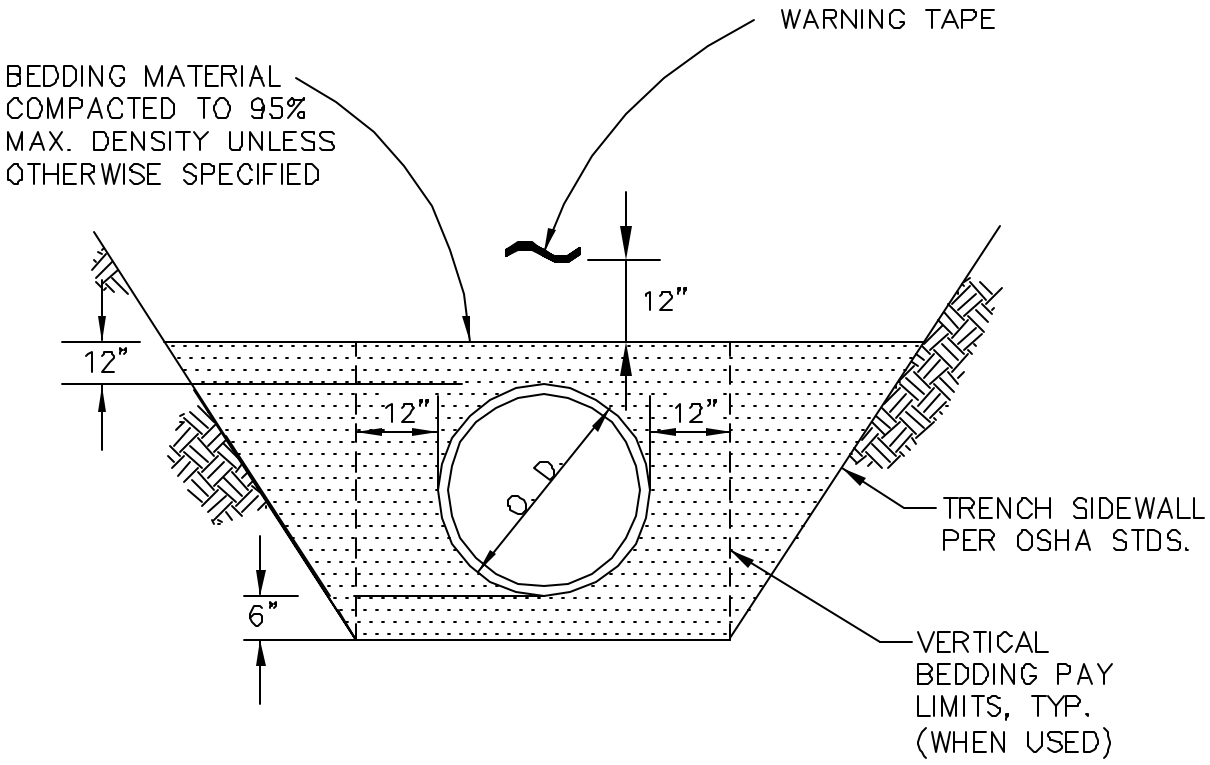
SECTION 20.06
DETAIL 20–6



NOTES:

(A) TRENCH BACKFILL MATERIAL PLACED AND COMPACTED TO DEPTHS AS DETERMINED BY THE ENGINEER.
(B) TRENCH WALL SLOPES WILL VARY WITH SOIL STRENGTH AND CHARACTER. SLOPES TO CONFORM TO OSHA STANDARDS.
(C) BEDDING: D-1 FOR WATER AND SEWER MAINS AND SERVICES; C-1 FOR STORM DRAIN PIPING.

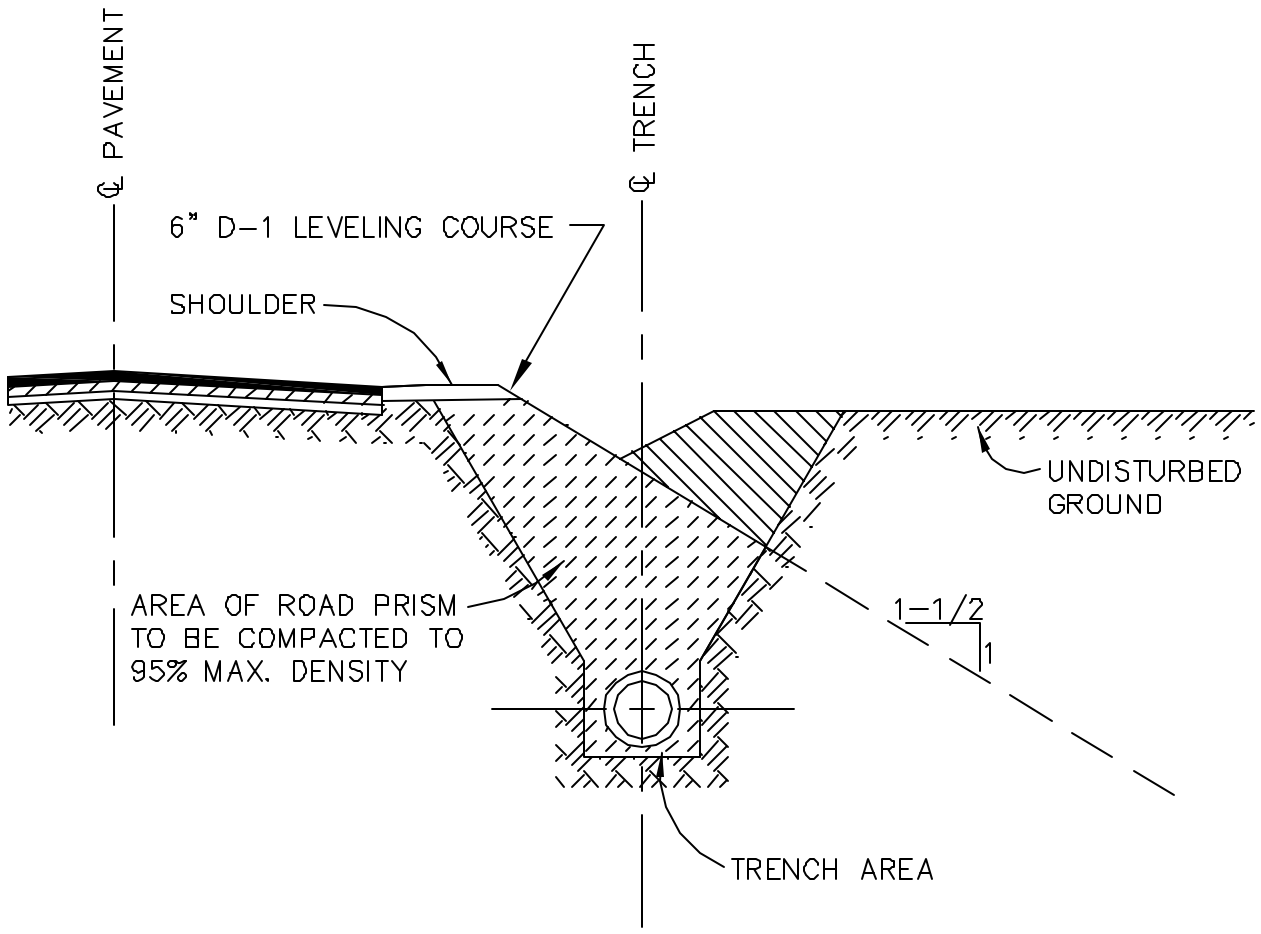
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TRENCH BACKFILL	SECTION 20.07 DETAIL 20-7



NOTES:

1. TRENCH WALL SLOPE WILL VARY WITH SOIL STRENGTH AND CHARACTER
2. O.D. = OUTSIDE DIAMETER OF PIPE.
3. BEDDING: D-1 FOR WATER AND SEWER MAINS AND SERVICES; C-1 FOR STORM DRAIN PIPING.

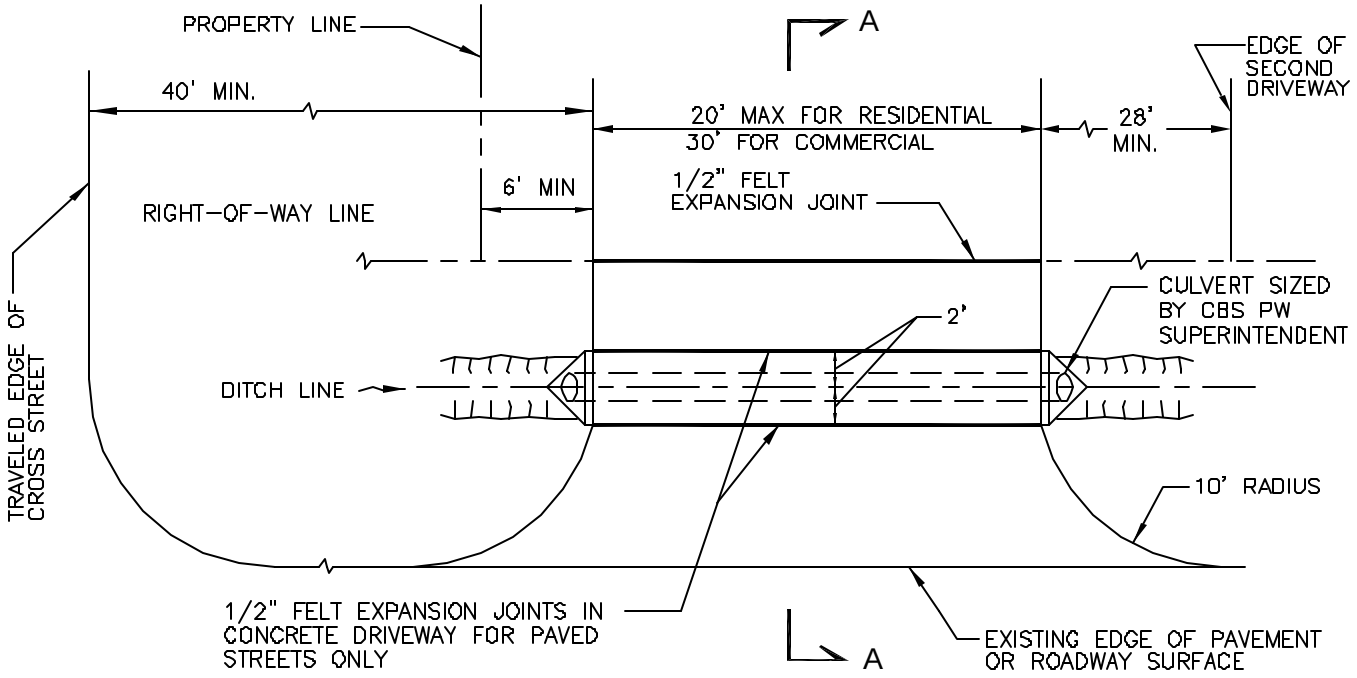
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	BEDDING	SECTION # 20.07 DETAIL # 20-8



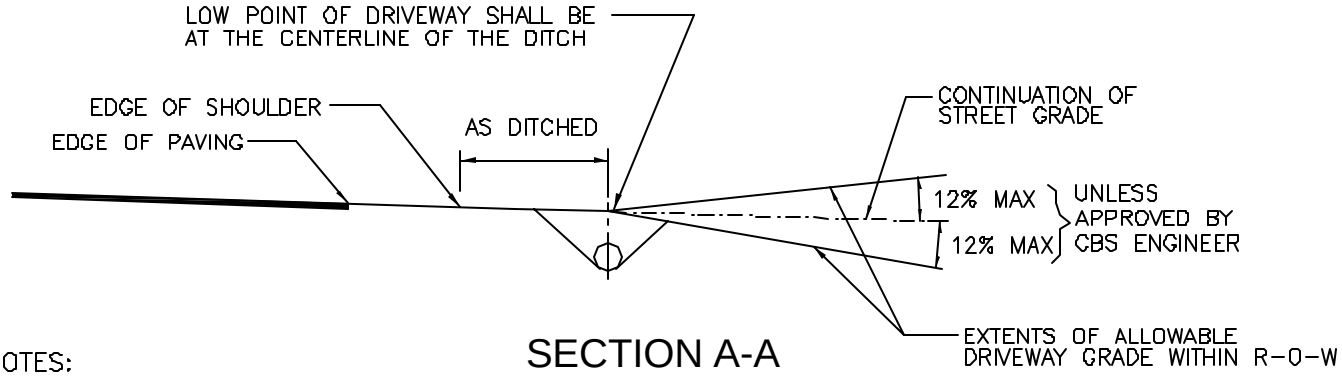
NOTES:

1. ALL MATERIAL THAT IS TO BE BACKFILLED WITHIN THE ABOVE-DESCRIBED AREA TO BE COMPACTED TO 95% MAX DENSITY
2. THIS BACKFILL WILL BE FREE OF ANY EXTENSIVE CLAYS & ORGANIC MATERIALS.
3. THE COMPACTION OF THIS BACKFILL WILL BE ACCOMPLISHED BY MECHANICAL MEANS WITHOUT THE AID OF WATER.
4. THE DITCH LINE WILL BE RESHAPED IN SUCH A MANNER AS TO ALLOW PROPER DRAINAGE & THE SHOULDER OF THE ROAD WILL BE REPLACED AT A UNIFORM SLOPE NOT TO EXCEED 1-1/2 TO 1.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# COMPACTION OF BACKFILL WITHIN RIGHT-OF-WAY	SECTION # 20.07 DETAIL # 20-9



PLAN VIEW

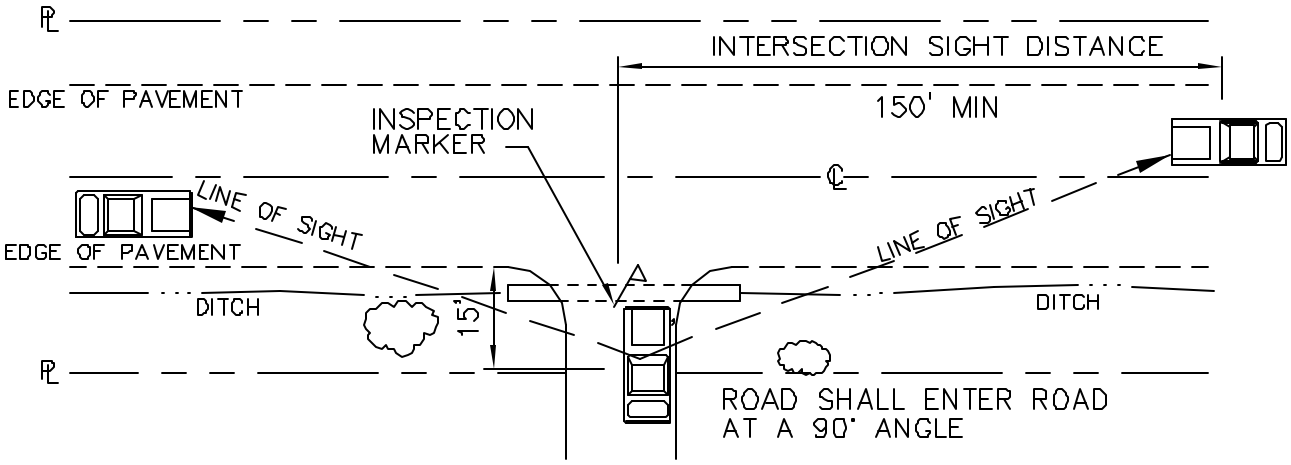


SECTION A-A

NOTES:

1. CULVERT MUST SLOPE TO DRAIN.
2. COMBINED DRIVEWAYS ARE ALLOWED WHEN APPROVED BY THE CBS PLANNING COMMISSION FOR SUBDIVISIONS OR CONDITIONAL USE. COMBINED ZERO LOT LINE PROPERTIES' DRIVEWAYS SHALL NOT EXCEED 32' IN WIDTH.
3. PAVING LIMIT FOR GRAVEL ROADS SHALL BE 2' FROM THE CENTERLINE OF DITCH OR AS APPROVED BY THE ENGINEER.
4. DRIVEWAY SHALL BE GRADED TO DRAIN INTO DITCH.
5. LOCATION AND WIDTH TO BE APPROVED BY THE CBS ON A SITE SPECIFIC BASIS. PLACE A MARKER, AS INDICATED, AT THE CENTER OF THE PROPOSED DRIVEWAY FOR INITIAL INSPECTION BY CBS.
6. SUBBASE MATERIAL AND DEPTH WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO STANDARD DETAIL 20-1.
7. AT CORNER LOTS, DRIVEWAY ENTRANCE MUST BE PLACED ON THE SECONDARY ROADWAY AND NO PORTION OF THE DRIVEWAY SHALL BE PERMITTED WITHIN 25 FEET OF THE PROPERTY CORNER OR INTERSECTION OF RIGHT-OF-WAY LINES.
8. SIGHT DISTANCE PER STANDARD DETAILS 20-11 & 20-12.

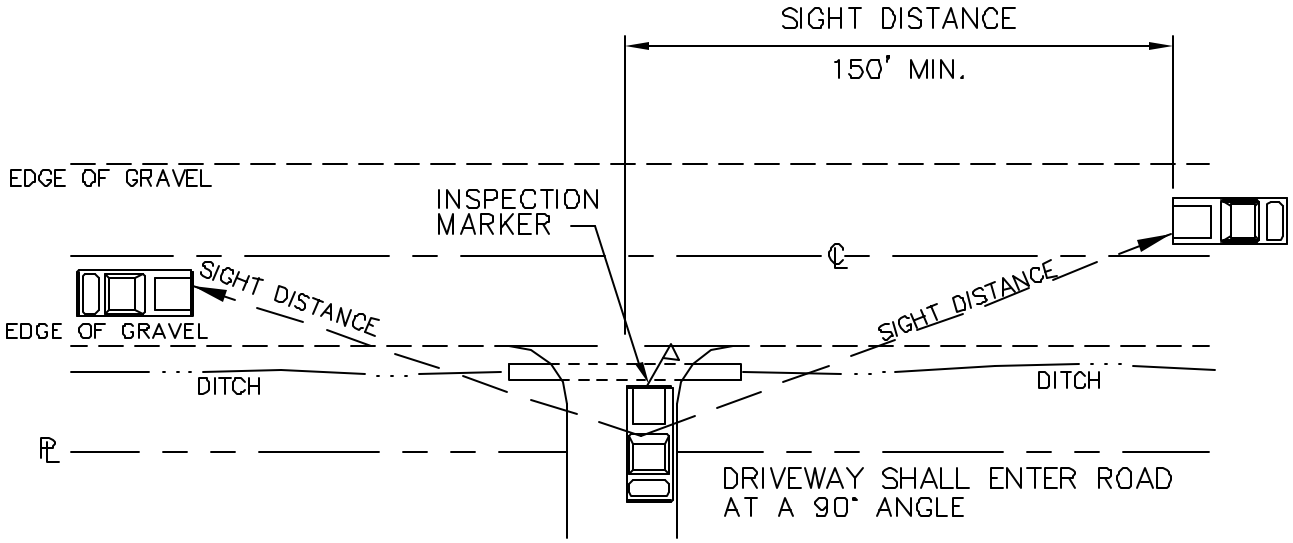
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	DRIVEWAYS FOR STREETS WITHOUT CURB AND GUTTER	SECTION# DETAIL # 20-10



NOTES:

1. SIGHT DISTANCE IS MEASURED 15' FROM THE EDGE OF TRAVEL LANE AT STANDARD EYE HEIGHT OF 3.5'.
2. TREES, SOIL AND OTHER OBSTRUCTIONS WITHIN THE SIGHT DISTANCE TRIANGLE SHALL BE REMOVED OR CLEARED BY THE APPLICANT.
3. LOCATION AND WIDTH TO BE APPROVED BY THE CITY ON A SITE SPECIFIC BASIS. PLACE A MARKER, AS INDICATED, AT THE CENTER OF THE PROPOSED DRIVEWAY FOR INITIAL INSPECTION BY THE CITY.

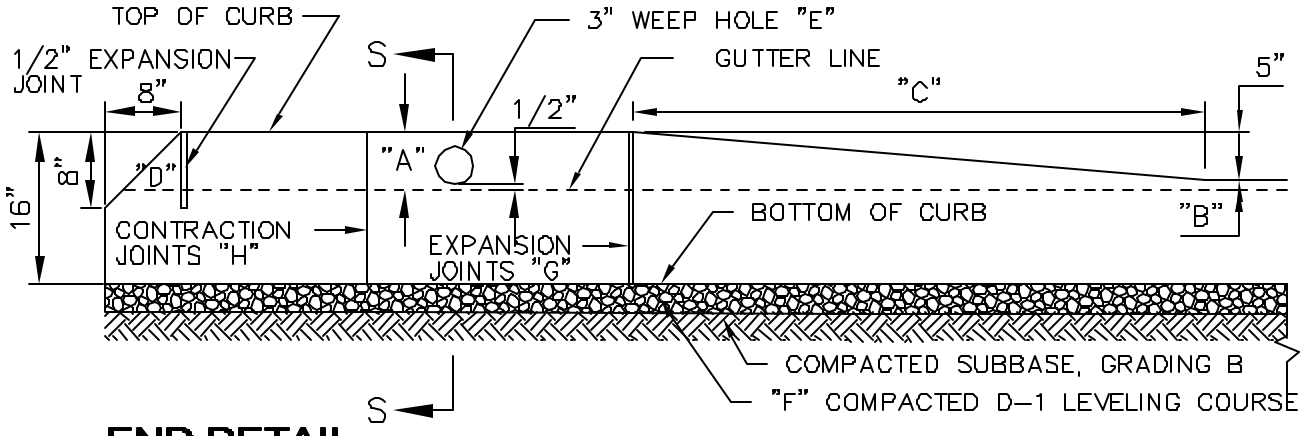
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL SIGHT DISTANCE AT INTERSECTIONS	SECTION 4 DETAIL 4 20–11



NOTES:

1. SIGHT DISTANCE IS MEASURED 10' FROM THE EDGE OF TRAVEL LANE AT STANDARD EYE HEIGHT OF 3.5'.
2. TREES, SOIL AND OTHER OBSTRUCTIONS WITHIN THE SIGHT DISTANCE TRIANGLE SHALL BE REMOVED OR CLEARED BY THE APPLICANT.
3. LOCATION AND WIDTH TO BE APPROVED BY THE CITY ON A SITE SPECIFIC BASIS. PLACE A MARKER, AS INDICATED, AT THE CENTER OF THE PROPOSED DRIVEWAY FOR INITIAL INSPECTION BY THE CITY.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL SIGHT DISTANCE AT GRAVEL DRIVEWAY	SECTION # DETAIL # 20–12

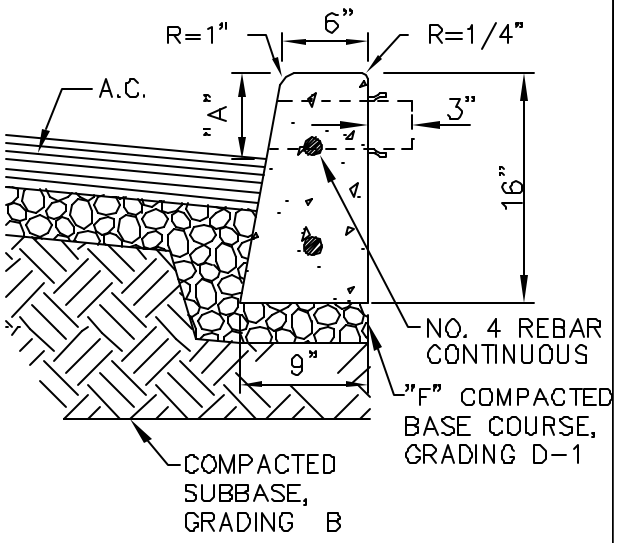


END DETAIL

APRON DETAIL

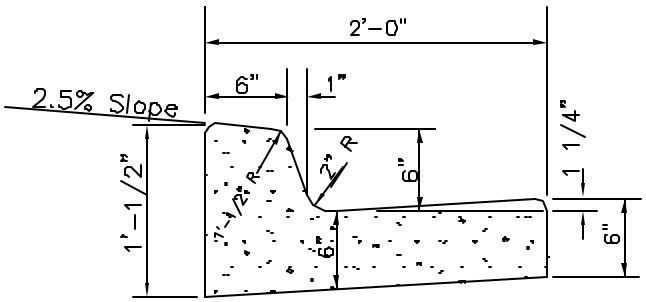
NOTES:

1. "A" CURB EXPOSURE, STANDARD 6", VARY AS SHOWN ON TYPICAL SECTION, OR AS DIRECTED.
   "B" CURB EXPOSURE ADJACENT TO DRIVEWAY, STANDARD 1", OR AS DIRECTED.
   "C" DRIVEWAY APRON, STANDARD RESIDENTIAL & COMMERCIAL 6' MIN, OR AS DIRECTED.
   "D" END CURB SECTION, TOP TO BE REMOVED UPON EXTENSION OF CURB.
   "E" WEEP HOLE, 3" PLASTIC DRAIN PIPE OR APPROVED EQUIVALENT, LOCATED AS INDICATED ON THE PLANS OR AS DIRECTED. DRAIN PIPE SHALL HAVE A BELL OR A 3" EXTENSION, FOR FUTURE HOOK-UP.
   "F" BASE COURSE, GRADING D-1
   "G" EXPANSION JOINTS, MAX. 30' SPACING AND AT BEGINNING AND END OF CURVES OR AS DIRECTED.
   "H" CONTRACTION JOINTS, MAX. 10' SPACING AND AT LOCATIONS AS DIRECTED.
2. CURB TO BE CLASS A PORTLAND CEMENT CONCRETE.
3. CONCRETE AND MISC. MATERIALS USED IN CURB CONSTRUCTION SHALL CONFORM TO CURRENT APWA STANDARD SPECIFICATIONS.

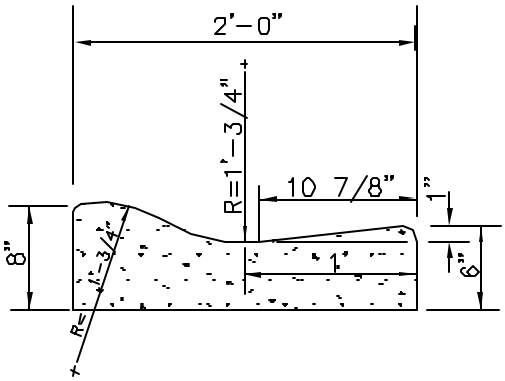


SECTION S-S

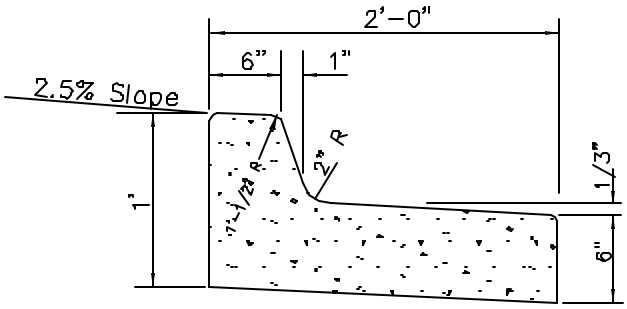
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	STANDARD VERTICAL CURB TYPE "C"	SECTION # 30.02 DETAIL # 30-1



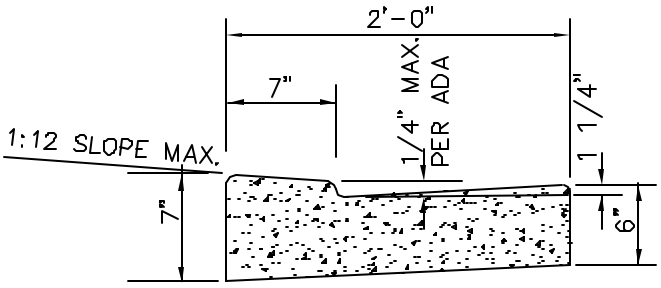
CURB & GUTTER
TYPE 1



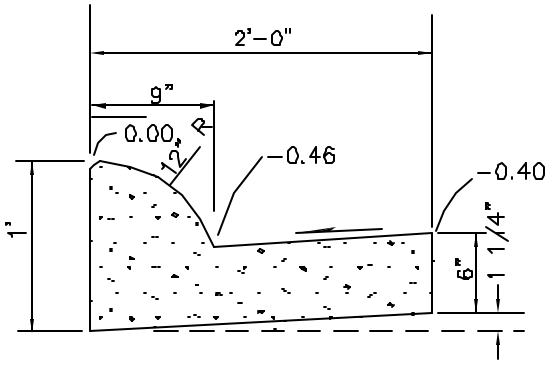
ROLLED CURB & GUTTER
TYPE 2



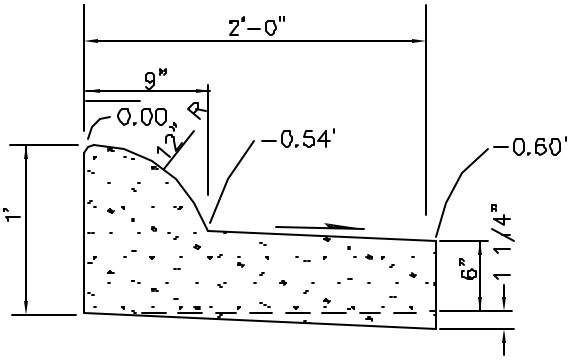
CURB & GUTTER
TYPE 3



DEPRESSED CURB & GUTTER
(USED AT CURB CUTS AND ADA RAMPS)
TYPE 4



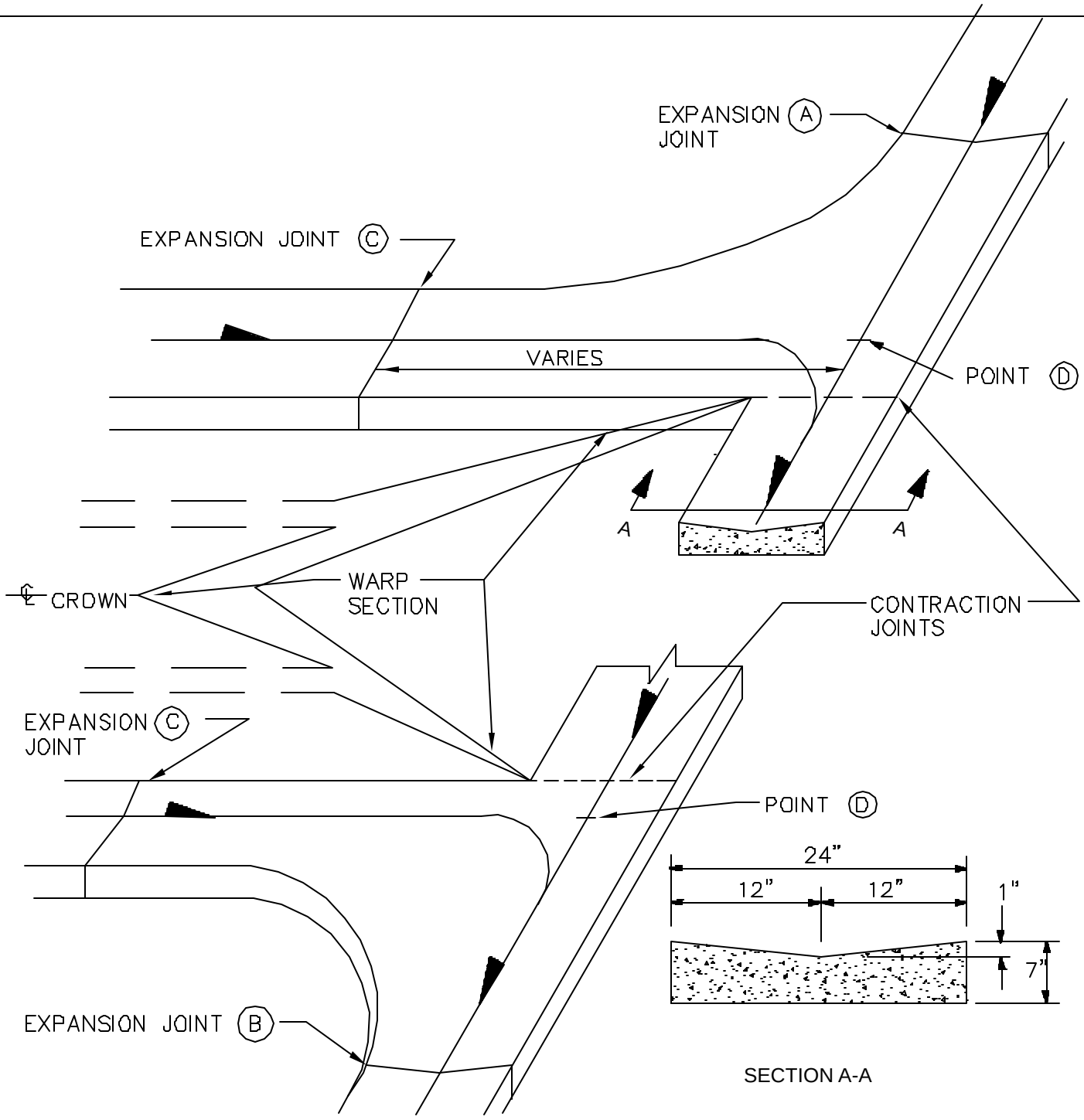
CURB & GUTTER
TYPE 5



CURB & GUTTER
TYPE 6

NOTE:
BOTH FRONT AND BACK EDGES OF THE CURB & GUTTER SHALL BE TROWELED TO A RADIUS OF ONE-HALF (1/2) INCH.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CURB AND GUTTER CROSS SECTIONS	SECTION # 30.02 DETAIL # 30-2

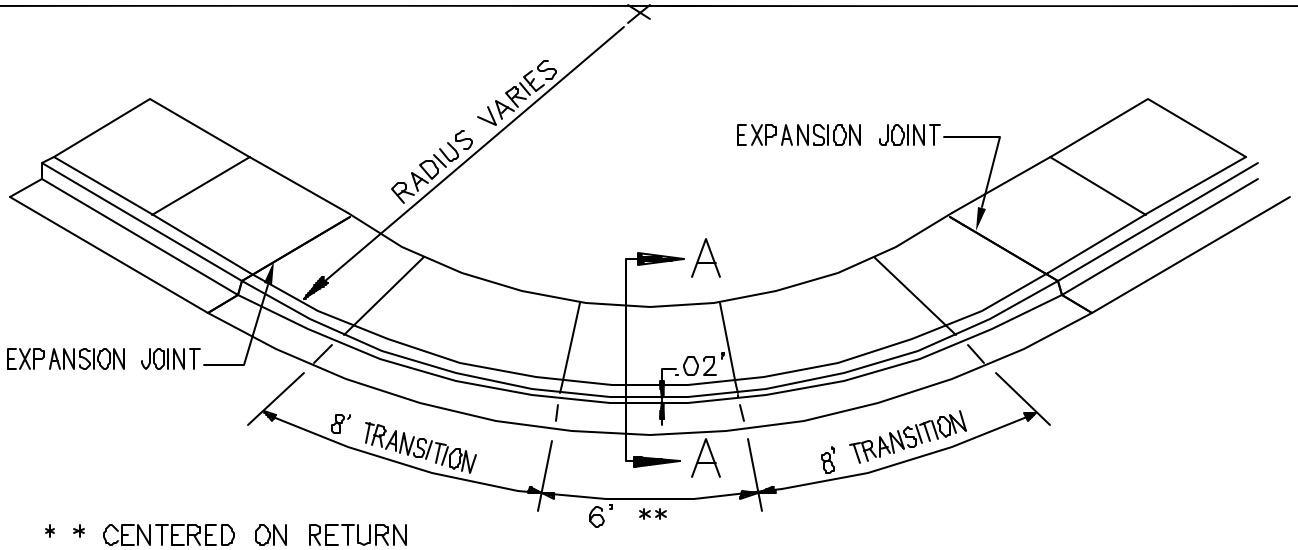


SECTION A-A

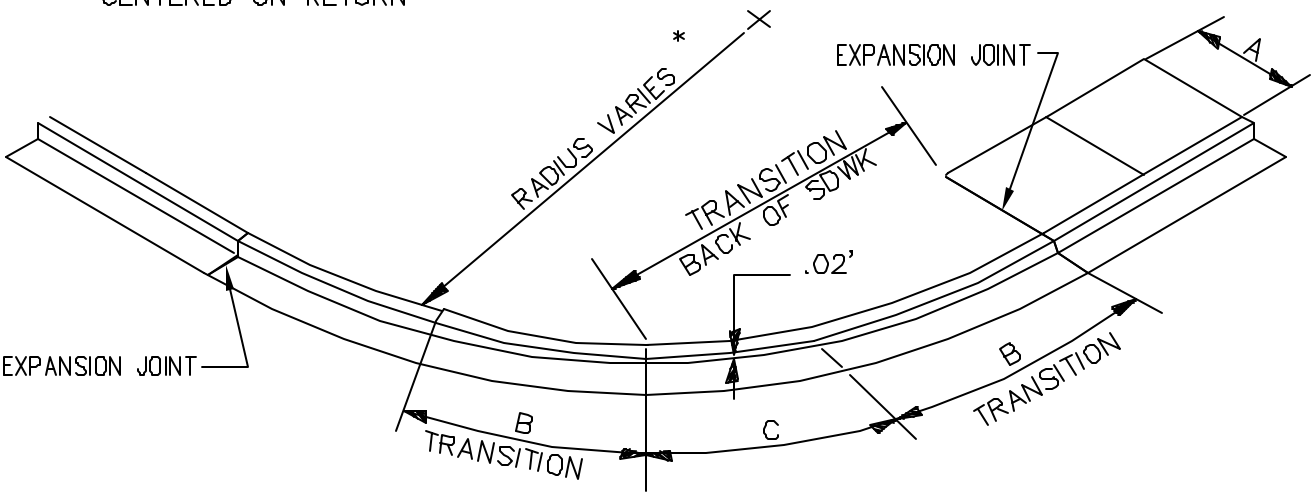
NOTE:

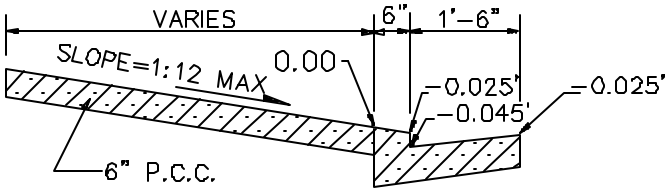
P.C.C. VALLEY GUTTER WILL BE PAID FOR PER LINEAR FOOT UNDER BID ITEM "P.C.C. VALLEY GUTTER". LENGTHS SHALL BE MEASURED ALONG THE STRAIGHT FLOW LINE BETWEEN EXPANSION JOINTS "A&B" AND FROM EXPANSION JOINT "C" TO THE INTERSECTION OF THIS STRAIGHT FLOW LINE (POINT "D") BOTH SIDES.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	P.C.C. VALLEY GUTTER	SECTION # 30.02 DETAIL # 30-3



* * CENTERED ON RETURN





SECTION A-A

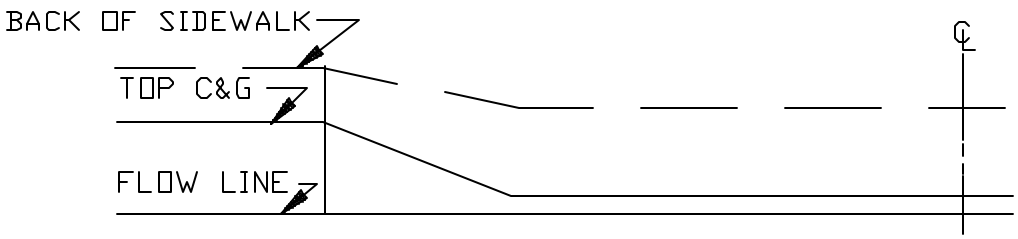
RADIUS*	A	B	C
15'	4'	5.5'	5.7'
20'	4'	6.4'	6.5'
20'	5'	9.0'	5.5'
25'	4'	7.1'	7.2'
25'	5'	10.1'	6.0'
30'	4'	7.8'	7.9'
30'	5'	11.0'	6.6'

CITY AND BOROUGH OF SITKA

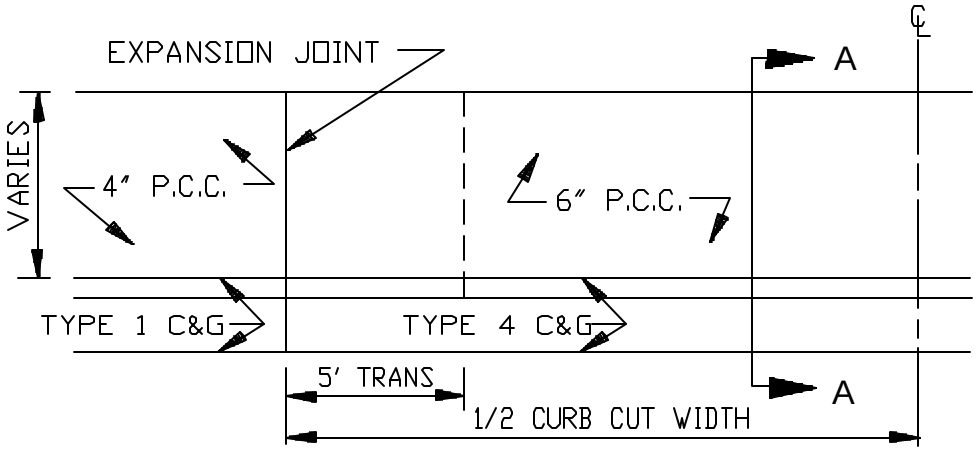
SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

STANDARD CURB RETURN

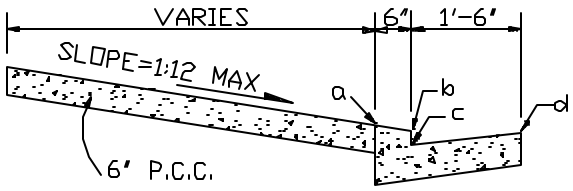
SECTION # 30.02
DETAIL # 30-4



PROFILE VIEW



PLAN VIEW



SECTION A-A

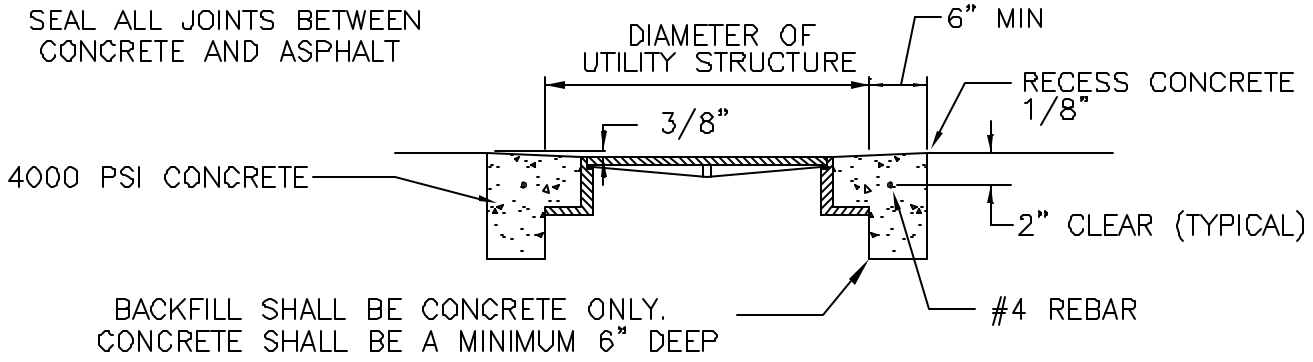
a	b	c	d
0.00	-0.025'	-0.045'	-0.025'

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

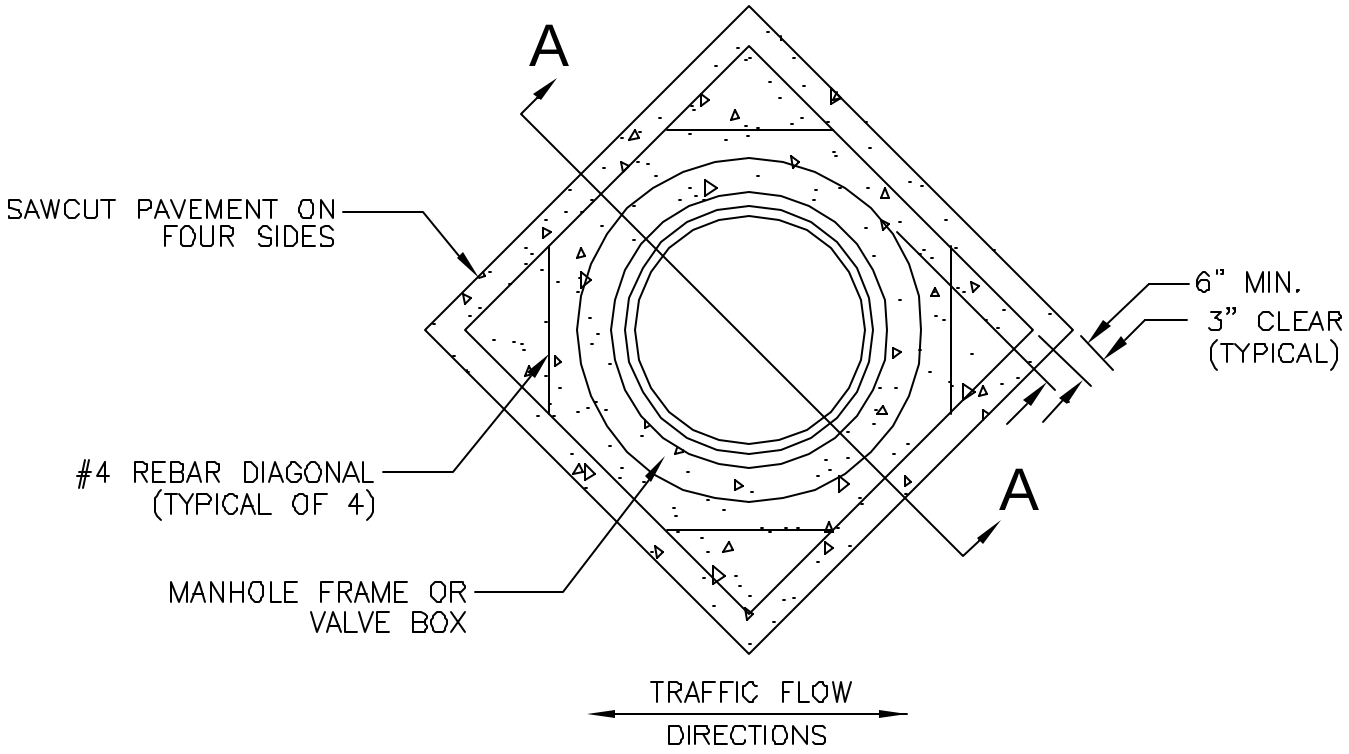
STANDARD CURB-CUT AND ALLEY RETURN

SECTION# 30.02

DETAIL # 30-5



SECTION A-A

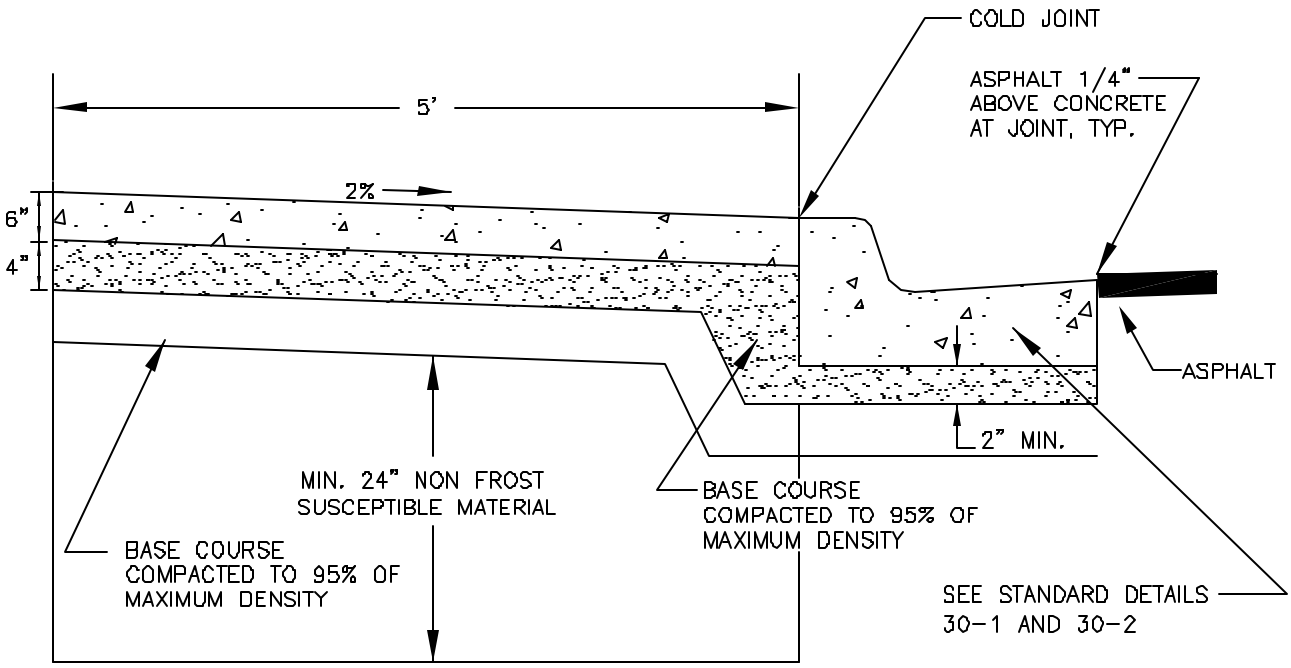


PLAN VIEW

NOTES:

1. INSTALL CONCRETE COLLAR AROUND ALL UTILITY STRUCTURES THAT LIE WITHIN PAVED ROADWAYS.
2. AFTER ADJUSTING STRUCTURE TO FINISH GRADE, BACKFILL WITH CONCRETE ONLY.
3. CURING COMPOUND SHALL BE APPLIED TO THE CONCRETE. APPLICATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.
4. ALL STRUCTURES SHALL BE RAISED TO BASE COURSE GRADE PRIOR TO PAVING.

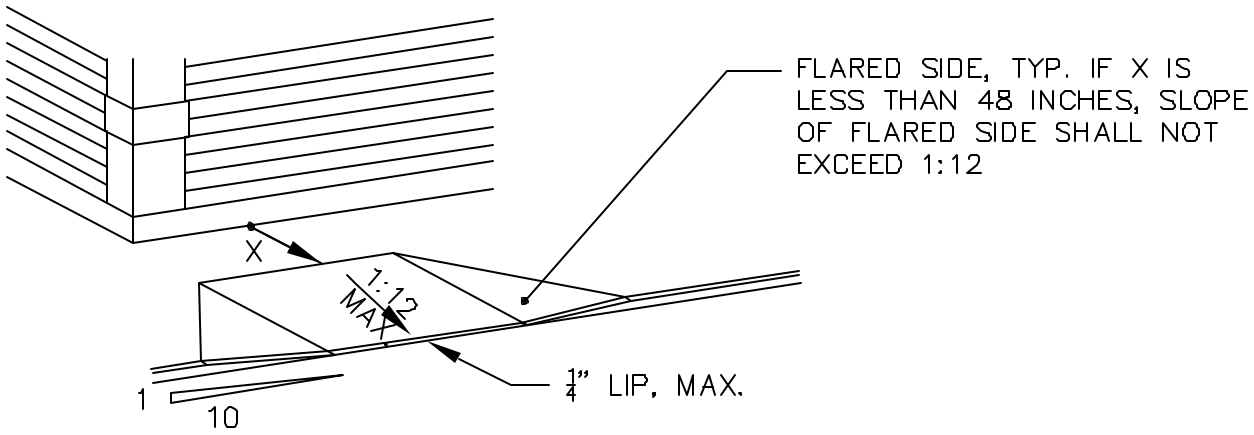
CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	UTILITY STRUCTURE COLLAR DETAIL	SECTION # 30.02 DETAIL # 30-6



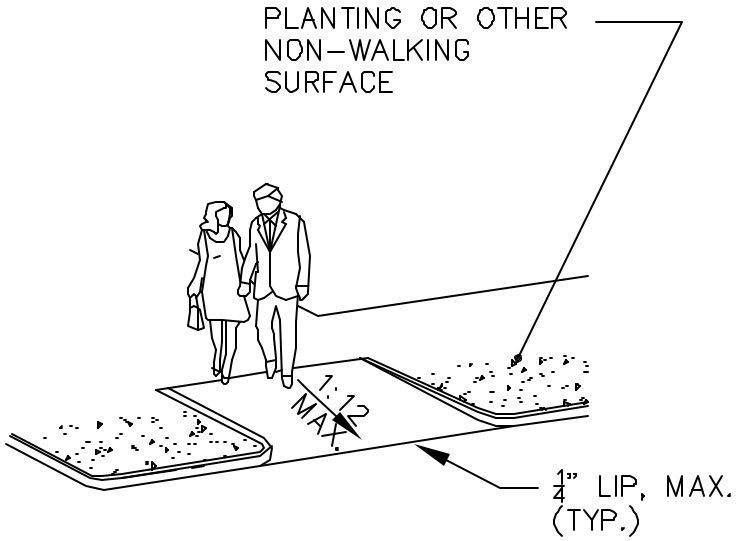
NOTES:

1. WHEELCHAIR ACCESS RAMPS SHALL BE REQUIRED ON ALL NEW SIDEWALK CONSTRUCTION AT CROSSWALKS AND INTERSECTIONS.
2. CURB AND GUTTER TRANSITION DESIGN TO BE APPROVED BY THE ENGINEER.
3. ALL STEEL MUST HAVE A MINIMUM OF 2" OF CONCRETE COVER.
4. ALL JOINTS AND SEAMS SHALL BE EDGED.
5. EXPANSION JOINTS SHALL BE 1/2", FILLED WITH AN EPOXY GROUT SEALANT, WITH NO GAPS FOR WATER INTRUSION. JOINTS SHALL BE A MAXIMUM OF 30' O.C.
6. STEEL TROWELING FINISH REQUIRED PRIOR TO BROOM FINISHING ON ALL SURFACES.
7. CURING COMPOUND SHALL BE APPLIED TO THE CONCRETE. APPLICATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.

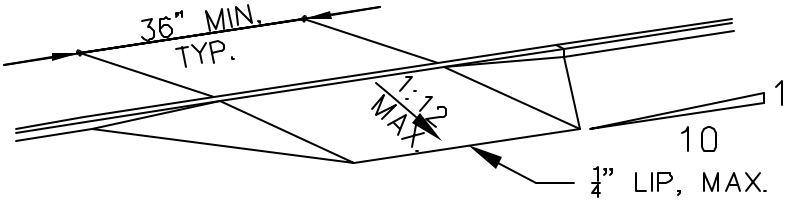
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CONCRETE SIDEWALK	SECTION# 30.03 DETAIL # 30-7



FLARED SIDES



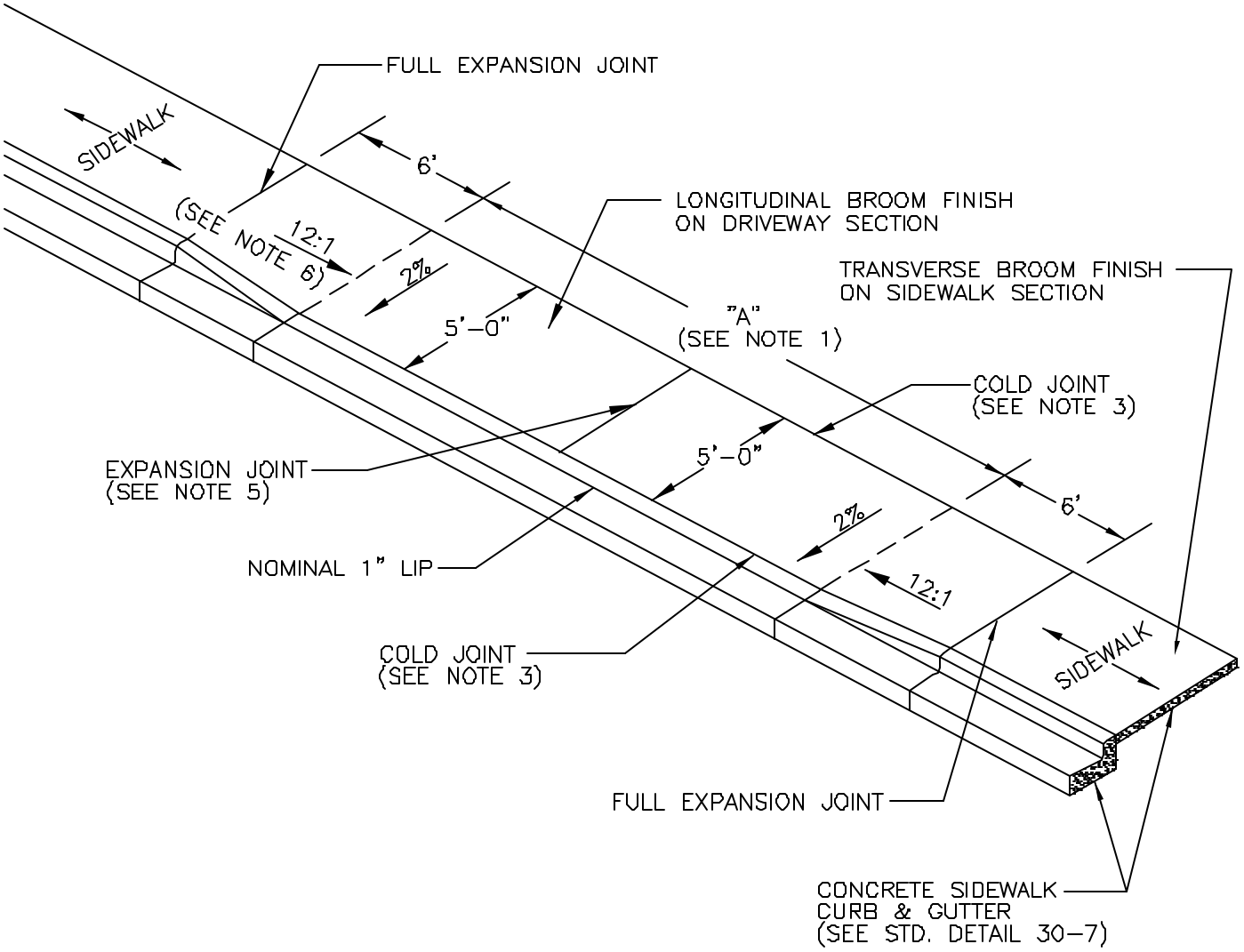
RETURNED CURB



BUILT-UP CURB RAMP

NOTE:
TYPE 4 CURB & GUTTER SHOWN

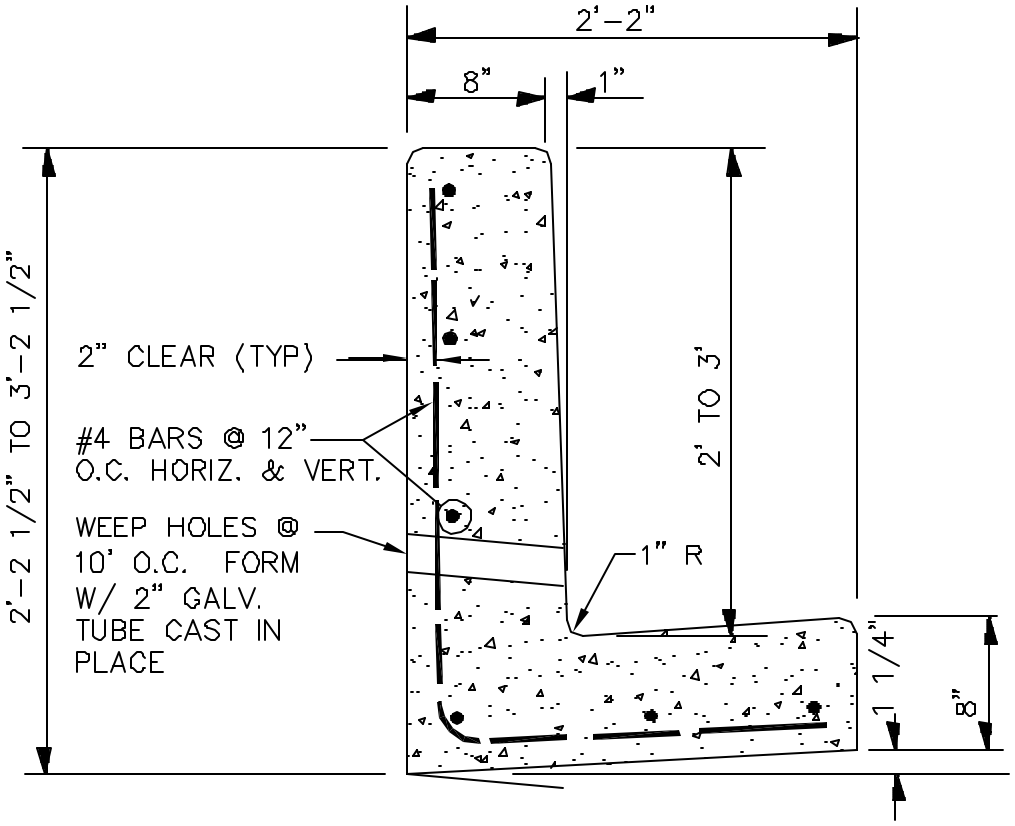
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	ADA ACCESS RAMPS FOR NEW SIDEWALKS	SECTION # 30.03 DETAIL # 30-8



NOTES:

1. "A" EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE.
2. CURING COMPOUND SHALL BE APPLIED TO THE CONCRETE. APPLICATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.
3. COLD JOINT REQUIRED BETWEEN SIDEWALK AND DRIVEWAY AND BETWEEN SIDEWALK AND CURB.
4. ALL DRIVEWAY CONCRETE IN THE R.O.W. SHALL BE A MINIMUM 6" THICK AND SHALL BE POURED ON A 6" BASE OF BASE COURSE COMPACTED TO 95% OF ITS MAXIMUM DENSITY.
5. EXPANSION JOINT REQUIRED IF "A" IS GREATER THAN 15'.
6. DRIVEWAY SLOPE AND SIDE SLOPES SHALL NOT BE STEEPER THAN 1:12 (e.g. 5" DROP OVER 5' RUN).

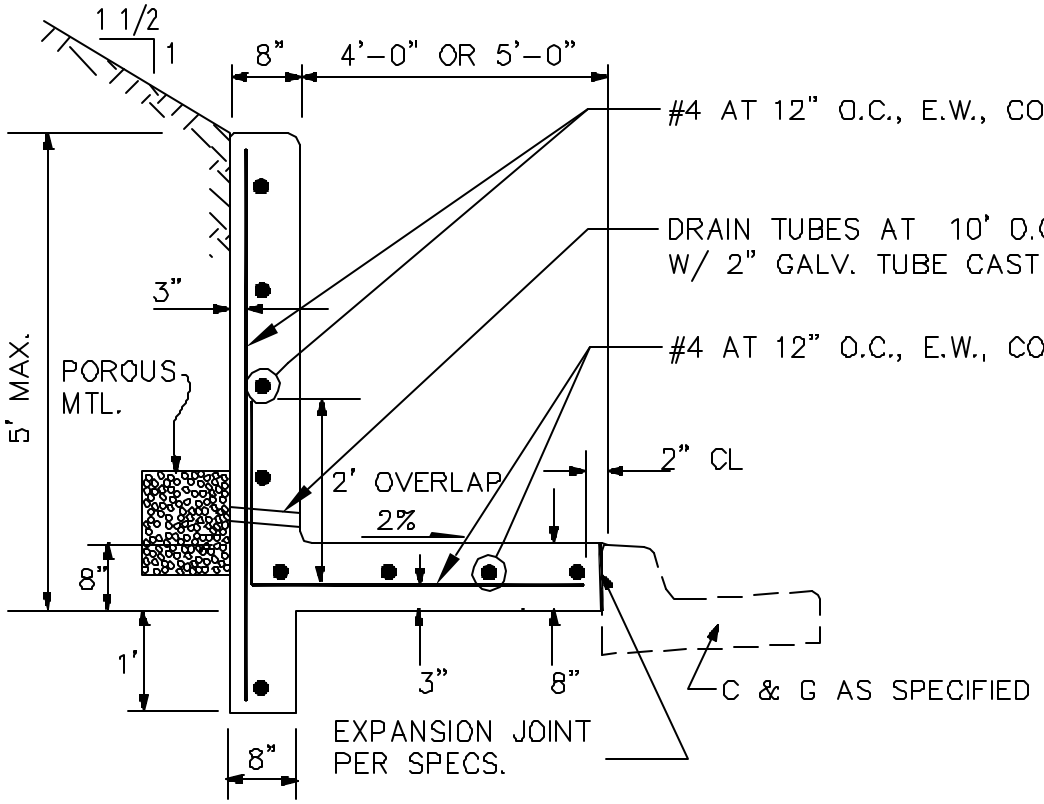
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# CONCRETE DRIVEWAY	SECTION # 30.03 DETAIL # 30-9



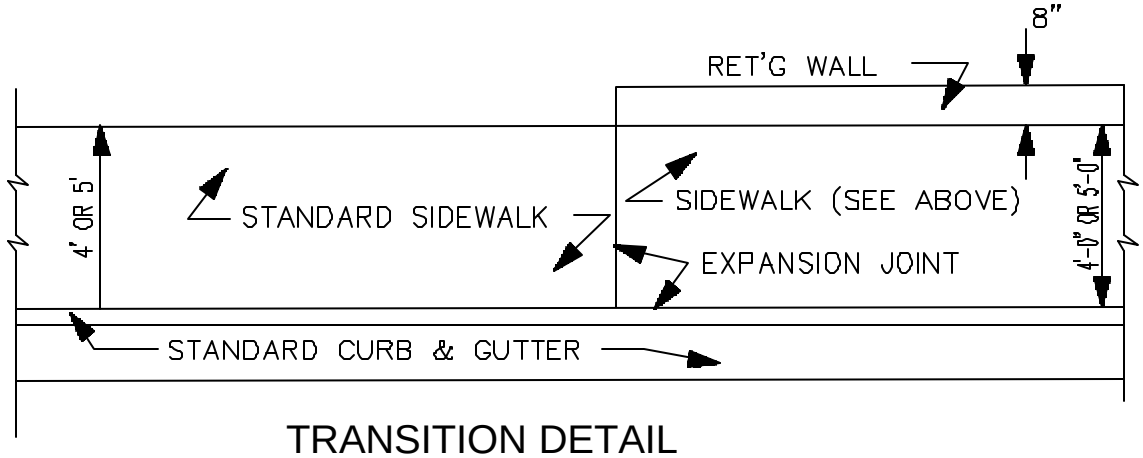
SPECIAL CURB & GUTTER
SECTION

NOTE:
ALL OUTSIDE EDGES SHALL HAVE 3/4" X 3/4" CHAMFERED CORNERS.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CURB TYPE RETAINING WALL 2'-0" TO 3'-0" HIGH	SECTION # 30.04 DETAIL # 30-10



TYPICAL SIDEWALK TYPE RETAINING WALL

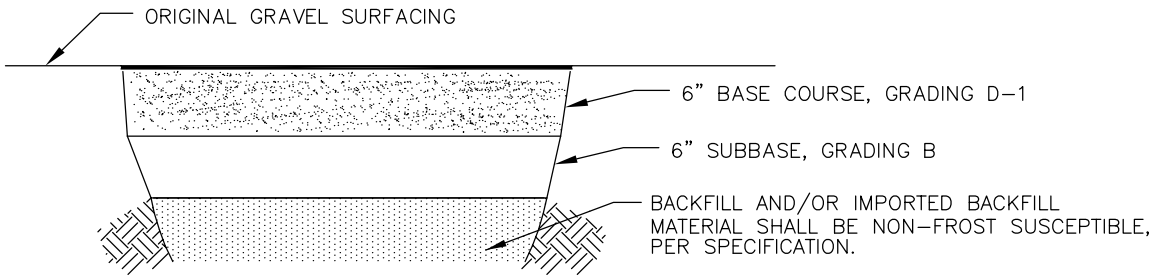


TRANSITION DETAIL
(PLAN VEIW)

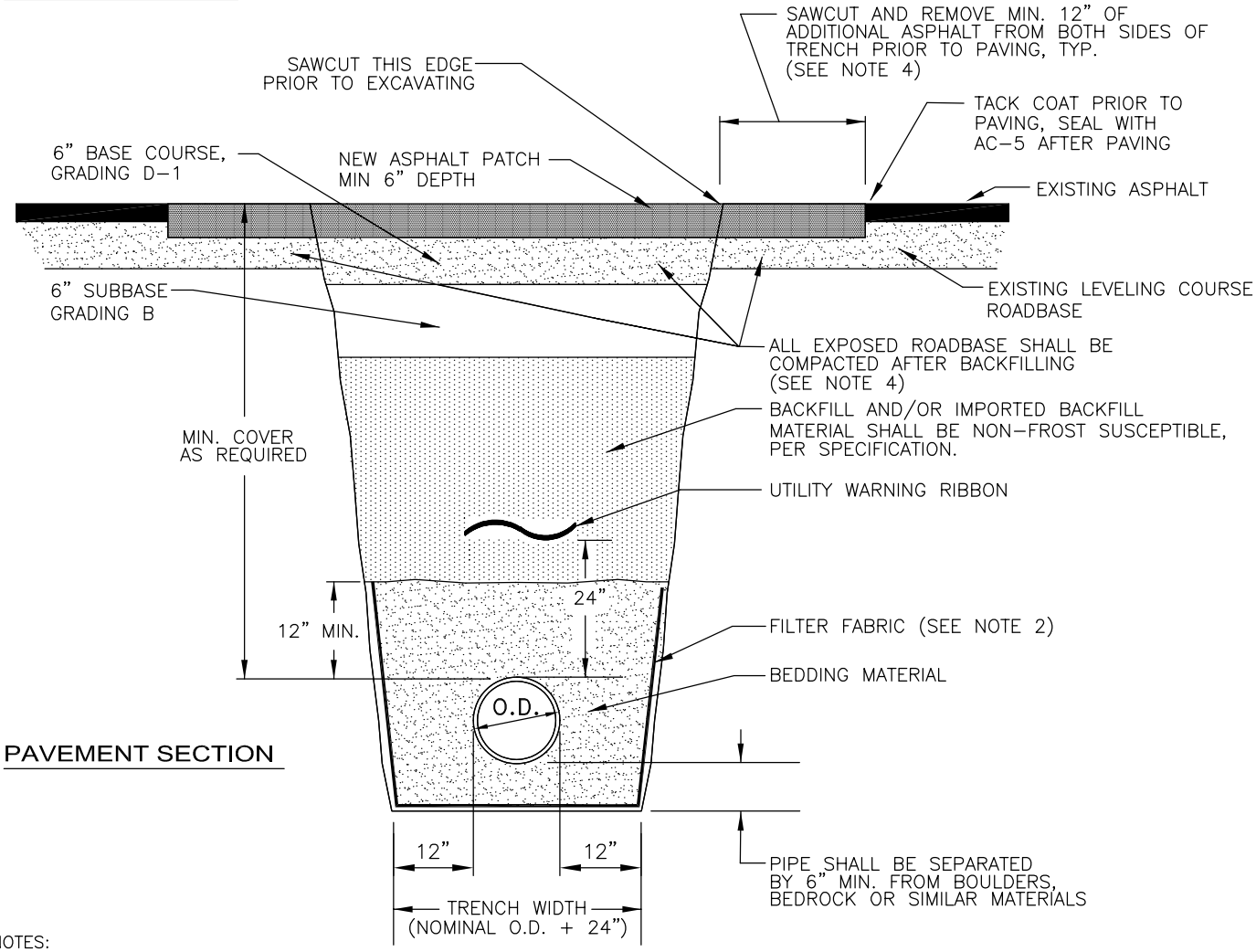
NOTES:

1. COST OF STD. C & G SECTION NOT TO BE INCLUDED IN UNIT BID PRICE FOR RETAINING WALL.
2. PLACE ONE CUBIC FOOT OF POROUS BACKFILL MATERIAL AROUND WEEP HOLE AS SHOWN.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL SECTION SIDEWALK TYPE RETAINING WALL	SECTION # 30.04 DETAIL # 30–11



GRAVEL SECTION



PAVEMENT SECTION

NOTES:

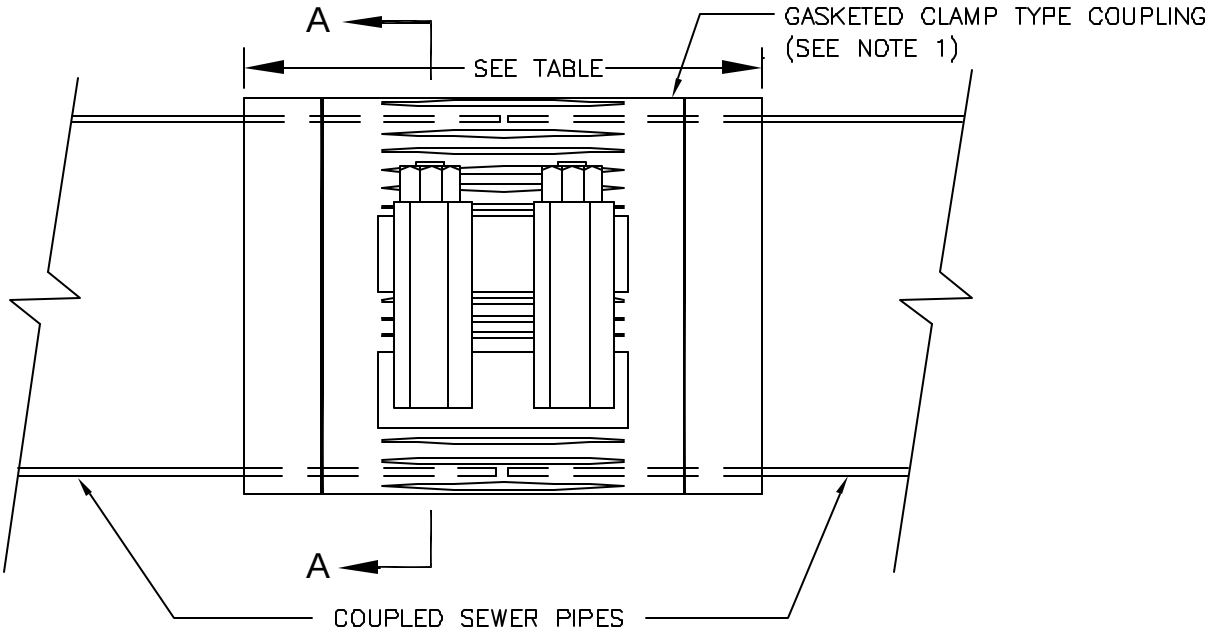
1. PAVEMENT SHALL BE REPLACED FROM THE EDGE OF PAVEMENT TO CENTERLINE OR FULL WIDTH IF TRENCHING BEYOND CENTERLINE. PAVEMENT JOINTS SHALL ONLY BE ALLOWED AT CENTERLINE AND PERPENDICULAR TO CENTERLINE A MINIMUM OF 8' APART.
2. FILTER FABRIC SHALL BE USED AS DIRECTED BY THE ENGINEER. ATTACH TO TRENCH SIDEWALL A MIN OF 12" ABOVE TOP OF PIPE.
3. BEDDING & BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM PROCTOR DENSITY WITHIN THE RIGHT-OF-WAY AND THROUGHOUT THE DEPTH OF EACH LIFT. LIFT DEPTH SHALL BE 18" MAX AND APPROVED BY THE ENGINEER.
4. PAVEMENT SHALL BE SAWCUT PRIOR TO EXCAVATING. AFTER BACKFILLING TRENCH, PAVEMENT SHALL BE SAWCUT A SECOND TIME TO EXPOSE A MINIMUM OF 12" OF UNDISTURBED BASE MATERIAL. ENTIRE WIDTH OF EXPOSED ROADBASE SHALL BE COMPACTED TO 95% OF MAXIMUM PROCTOR DENSITY.
5. IF TRENCH IS NOT IMMEDIATELY BACKFILLED AND COMPACTED, REMOVAL OF MORE THAN 12" MIN. OF EXTRA ASPHALT AND FURTHER COMPACTION OF THE ROADBASE SHALL BE REQUIRED BY THE ENGINEER.
6. RESURFACE ASPHALT PAVED STREETS WITH 6" MIN. BASE COURSE AND 6" MIN. ASPHALT.
7. RESURFACE UNPAVED STREETS WITH 6" MIN. BASE COURSE.

CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

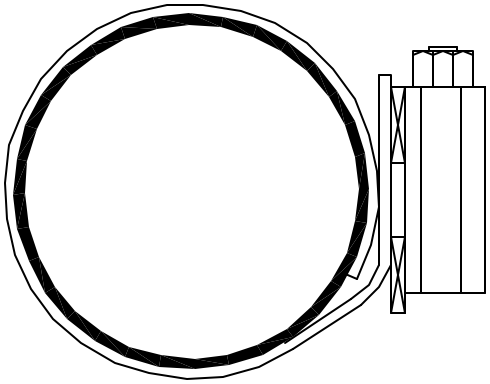
SCALE: NTS
APPROVED: MKH
REVISED: 4/7/2026

PAVEMENT RESURFACING AND TRENCH DETAIL

SECTION# 40.07
DETAIL # 40-1



PLAN VIEW



SECTION A-A

PIPE SIZE	LENGTH OF CLAMP
4"	8", MIN.
6"	12"
8"	12"
10"	12'
12"	12"
14"	12"
18"	16"
21"	20"
24"	20"
27"	24"
30"	24"

NOTES:

1. USE THIS STANDARD WHEN COUPLING SEWER PIPES WITHIN THE RIGHT-OF-WAY
   COUPLING SHALL BE ROMAC INDUSTRIES SS1 12" SEWER CLAMP COUPLING OR APPROVED EQUAL.
2. GASKET SHALL BE VIRGIN SBR COMPOUNDED FOR WATER AND SEWER SERVICE.
3. BOLTS, WASHERS, NUTS, LUG, AND SHELL SHALL BE STAINLESS STEEL.
4. CONNECTED PIPES SHALL BE CUT PERPENDICULAR AND INSERTED INTO COUPLING SO THAT ENDS ARE FLUSH.

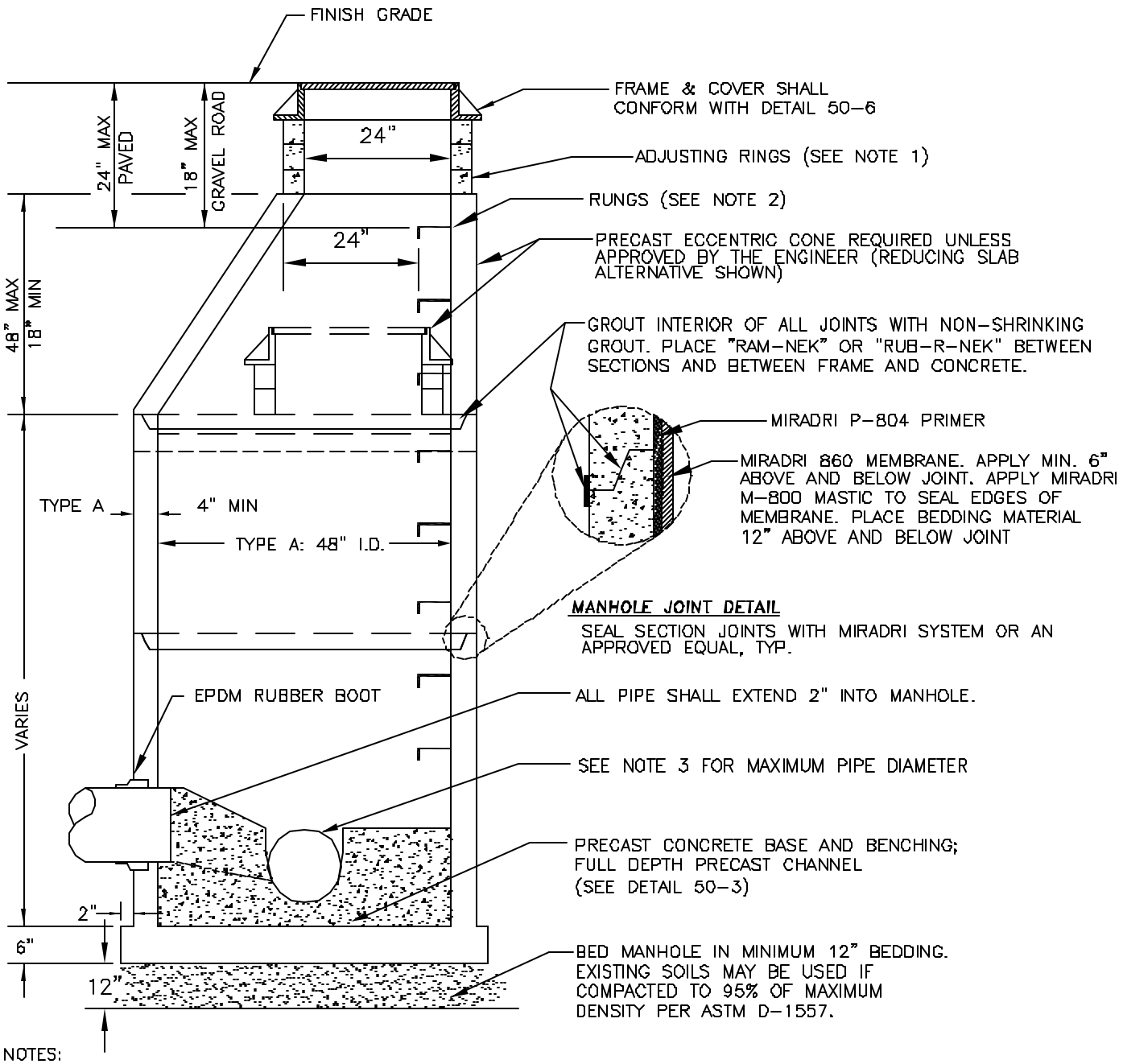
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

COUPLING FOR DISSIMILAR SANITARY SEWER PIPES

SECTION# 50.02

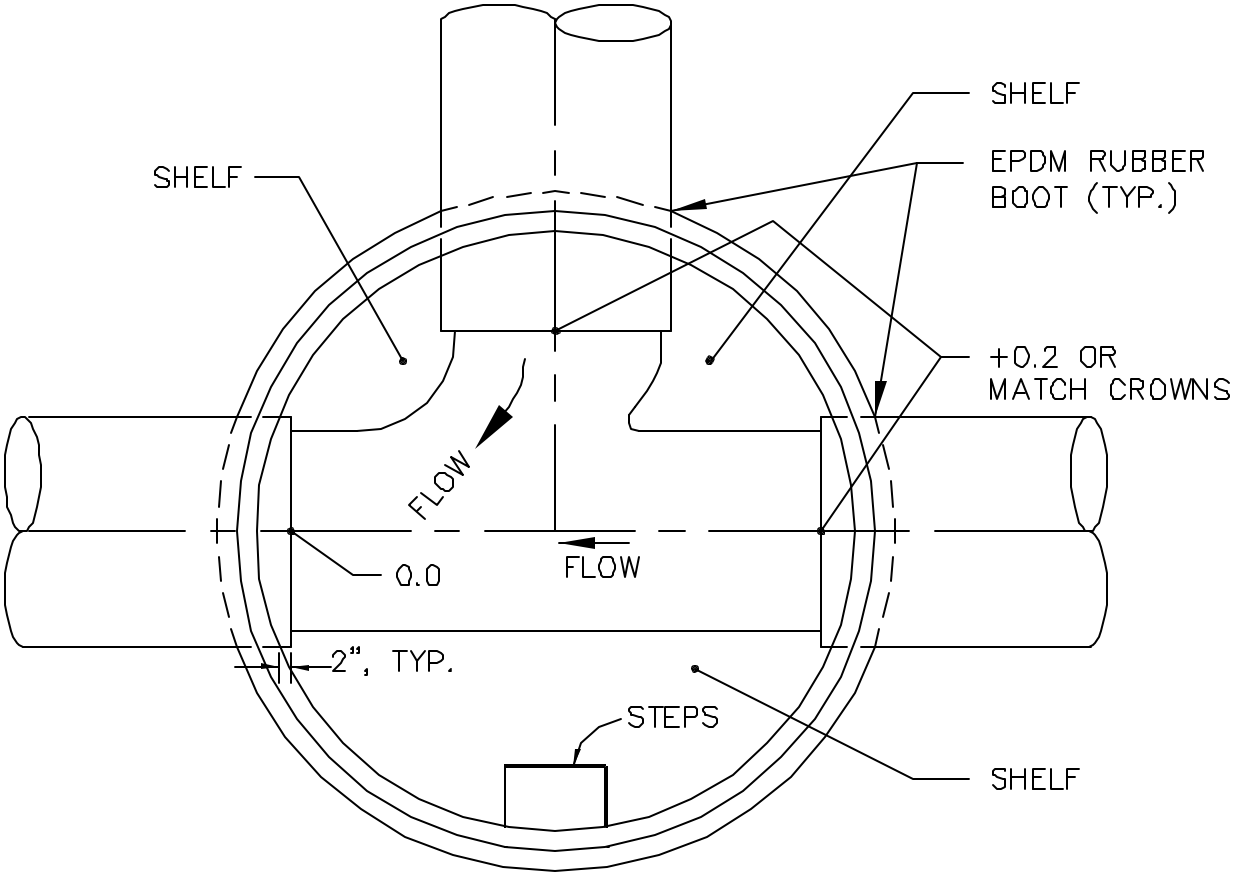
DETAIL # 50-1

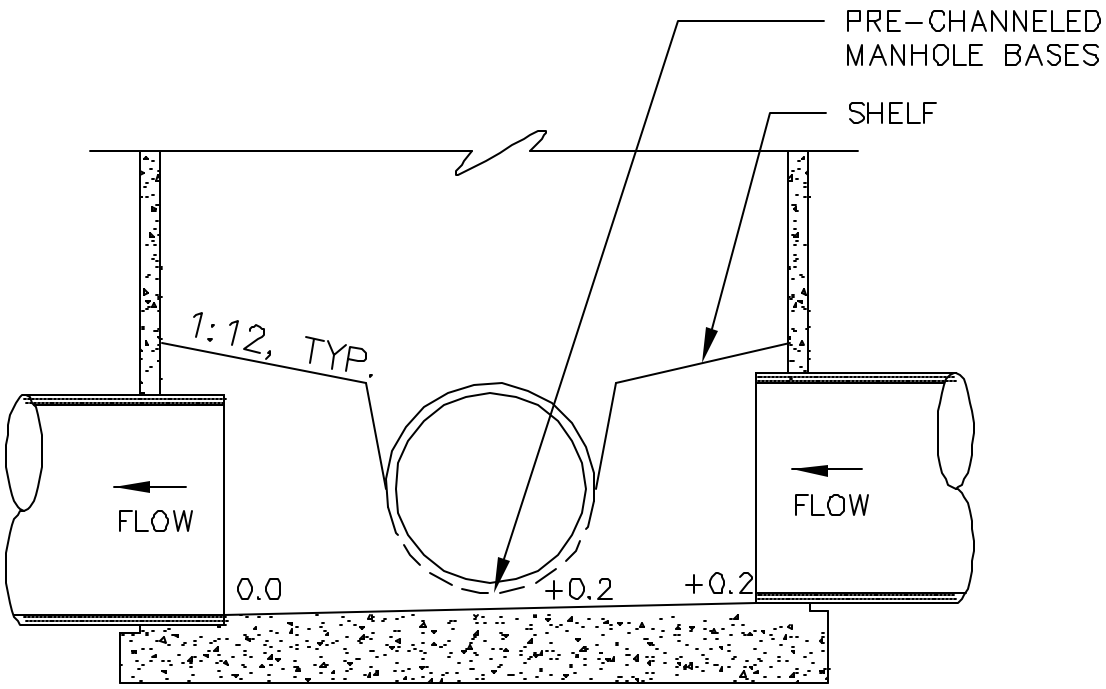


NOTES:

1. USE NO MORE THAN ONE 4" ADJUSTING RING ON NEW CONSTRUCTION ON UNPAVED ROADS, AND NO MORE THAN THREE RINGS ON RECONSTRUCTIONS. NO MORE THAN ONE OF THE NECESSARY ADJUSTING RINGS SHALL BE 4". APPLY WATERPROOF MASTIC AND MEMBRANE AROUND RINGS.
2. RUNGS TO BE PLACED 12" O.C. ON UNOBSTRUCTED SIDE OF MANHOLE. LAST RUNG SHALL BE 18" MAX FROM BOTTOM OF MANHOLE, AND TOP RUNG SHALL BE 6" MAXIMUM FROM TOP OF CONE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, LAST RUNG SHALL BE PLACED 6" OVER SMALLEST PIPE. SEE DETAIL 50-5.
3. PIPE DIAMETERS FOR TYPE A MANHOLES SHALL BE 8"-24". FOR LARGER PIPES, USE TYPE B MANHOLE.
4. REFER TO A.S.T.M. C-478 FOR DESIGN REQUIREMENTS AND C-478-69 FOR MINIMUM STEEL FOR BARREL. FIRST BARREL SECTION SHALL BE IMBEDDED IN BASE. BLOCKOUTS SHALL BE FORMED.
5. DENSITY OF BACKFILL SHALL BE 95% OF MAXIMUM PROCTOR DENSITY.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# SANITARY MANHOLE TYPE A PIPE DIA. 8" TO 24"	SECTION # 50.03 DETAIL # 50-2





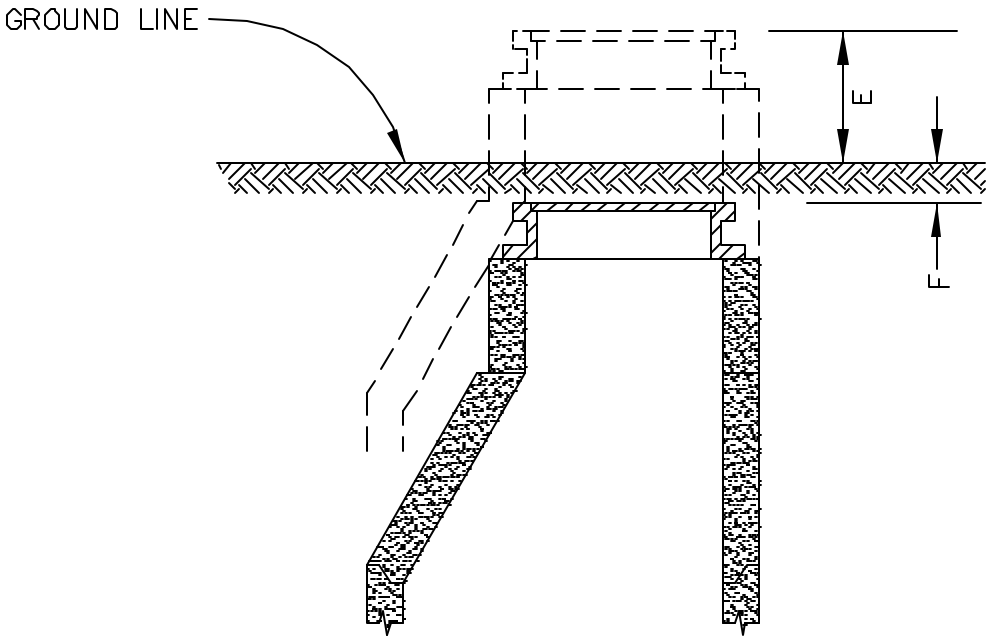
CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

TYPE A MANHOLE BASE PLAN

SECTION#
50.03

DETAIL #
50-3

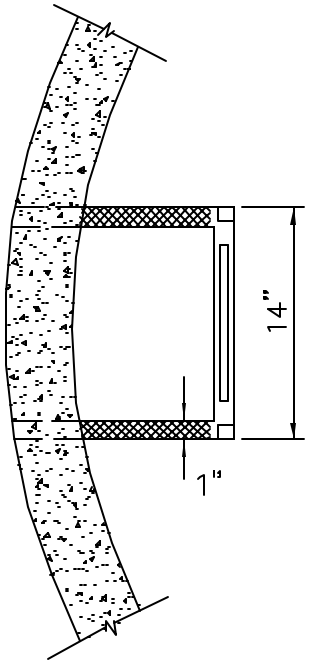


LOCATION	E	F
BACKYARDS, GRAVEL STREETS, AND ALLEY AREAS WHERE TRAVELED.		6" (NO GRADE RINGS)
UNDEVELOPED AND SWAMPY AREAS.	24" MIN	
HIGHWAY R.O.W.S OUTSIDE TRAFFIC AREAS.	6"	
PAVED STREETS.		1/4"

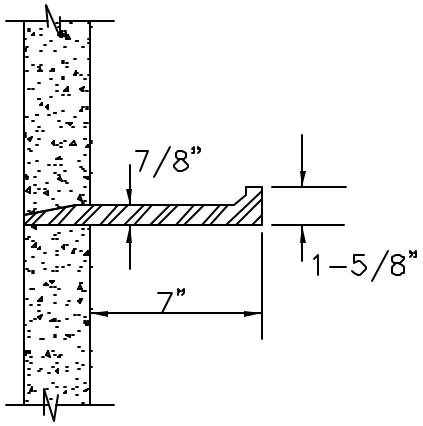
SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

MANHOLE HEIGHTS

SECTION # 50.03
DETAIL # 50-4



NOTE:
STEPS SHALL BE LANE POLYETHYLENE 14" LADDER STEPS, OR APPROVED EQUAL. STEPS SHALL BE INSTALLED IN ACCORDANCE WITH MANHOLE STEP MANUFACTURER'S RECOMMENDATIONS.

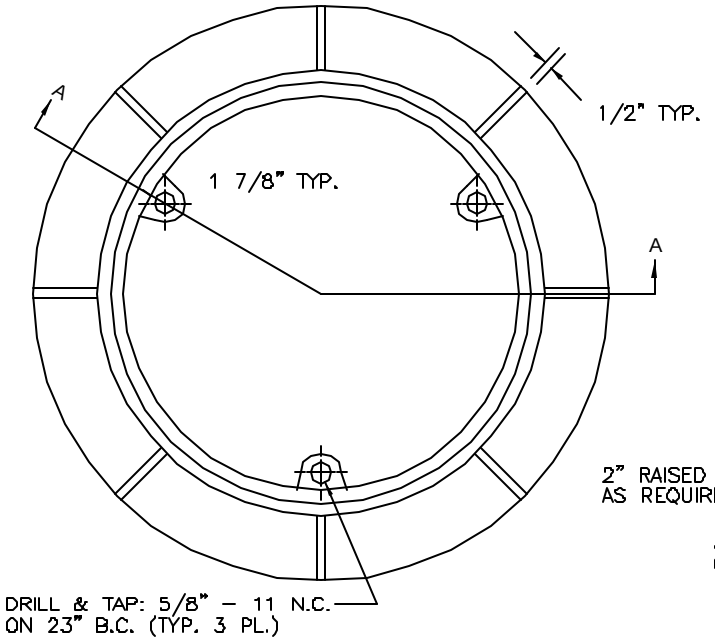


SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

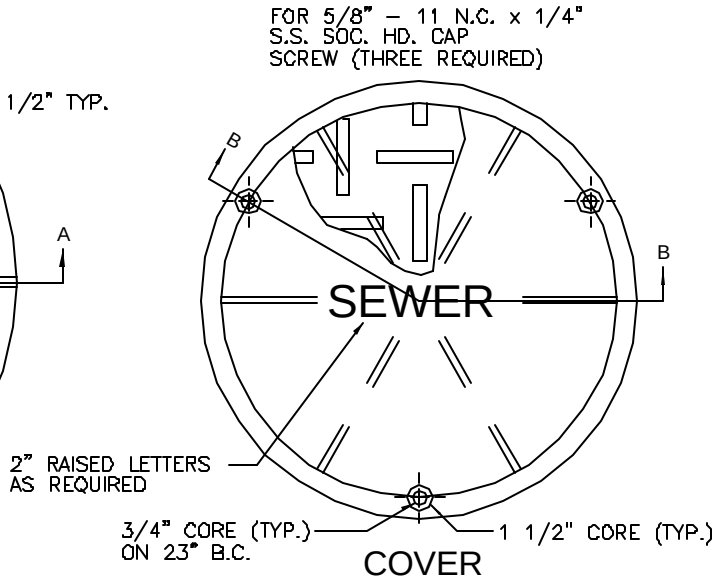
MANHOLE STEP

SECTION
50.03

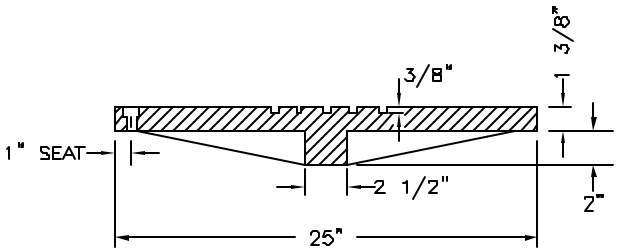
DETAIL
50-5



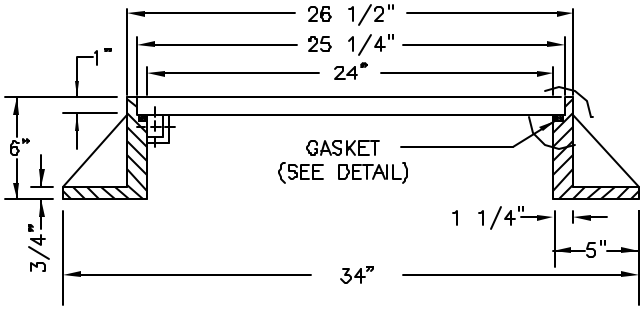
FRAME
PLAN VIEW



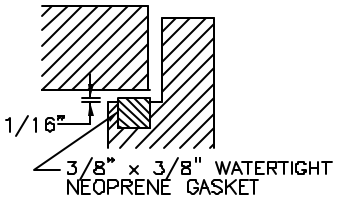
COVER
PLAN VIEW



SECTION B-B



SECTION A-A



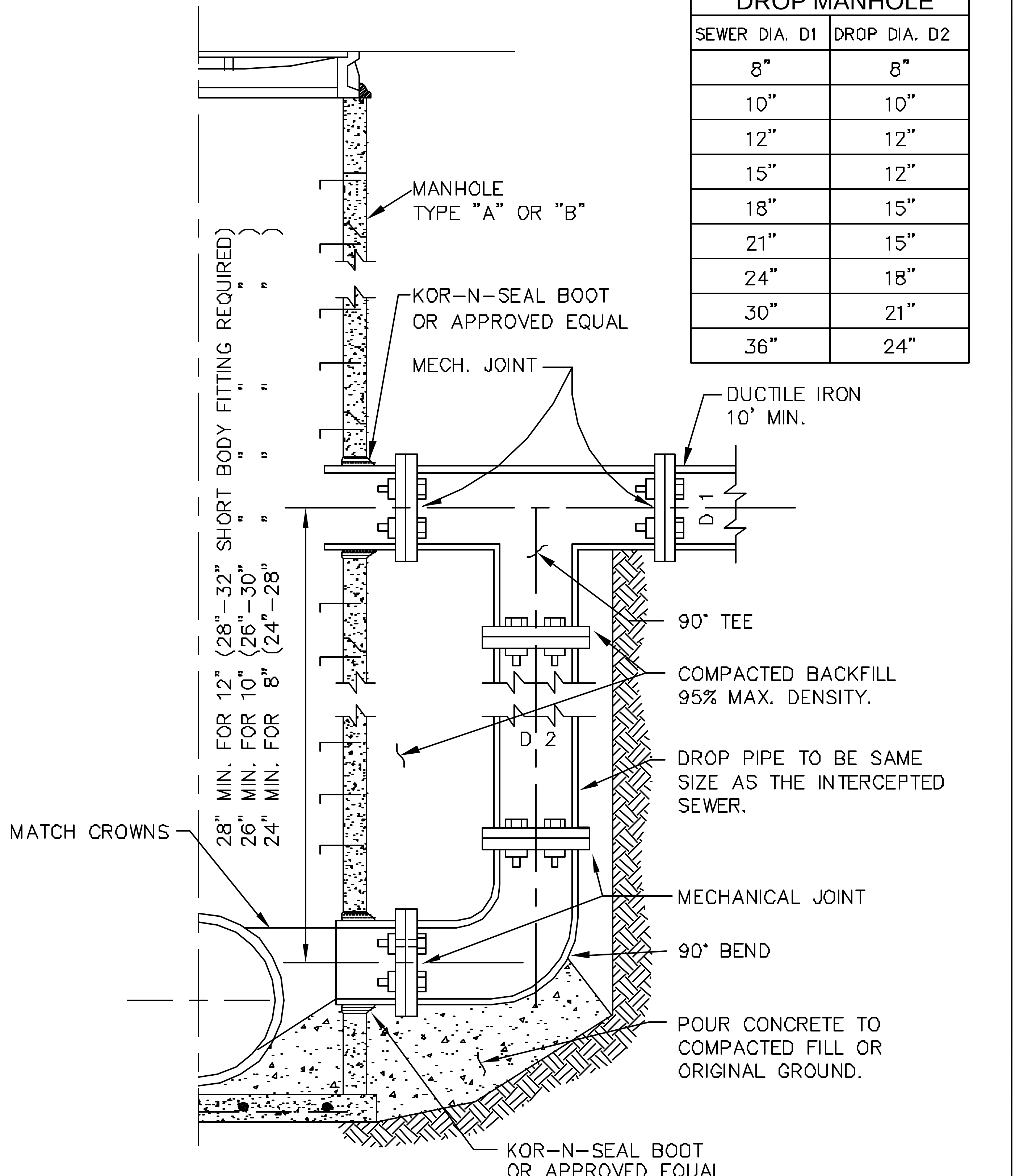
GASKET DETAIL

NOTES:

1. FRAME MUST BE MACHINED TO FIT WATERTIGHT NEOPRENE GASKET.
2. COVER SHALL HAVE THE WORD(S) "SEWER", "WATER", OR "STORM SEWER" CAST IN, SHALL HAVE NO HOLES, AND SHALL BE PROVIDED WITH AN INTEGRAL POCKET LIFT HANDLE.
3. FRAME AND COVER DIMENSIONS SHALL BE IN ACCORDANCE WITH OLYMPIC CONSTRUCTION CASTINGS NO. MH3DW/T WATERTIGHT BOLT–DOWN LID, OR AN APPROVED EQUAL.
4. FRAME AND GRATE SHALL BE GRAY CAST OR DUCTILE IRON.
5. FRAME AND GRATE SHALL BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SANITARY SEWER LOCKING MANHOLE COVER & FRAME	SECTION # 50.04 DETAIL # 50–6

DROP MANHOLE	
SEWER DIA. D1	DROP DIA. D2
8"	8"
10"	10"
12"	12"
15"	12"
18"	15"
21"	15"
24"	18"
30"	21"
36"	24"



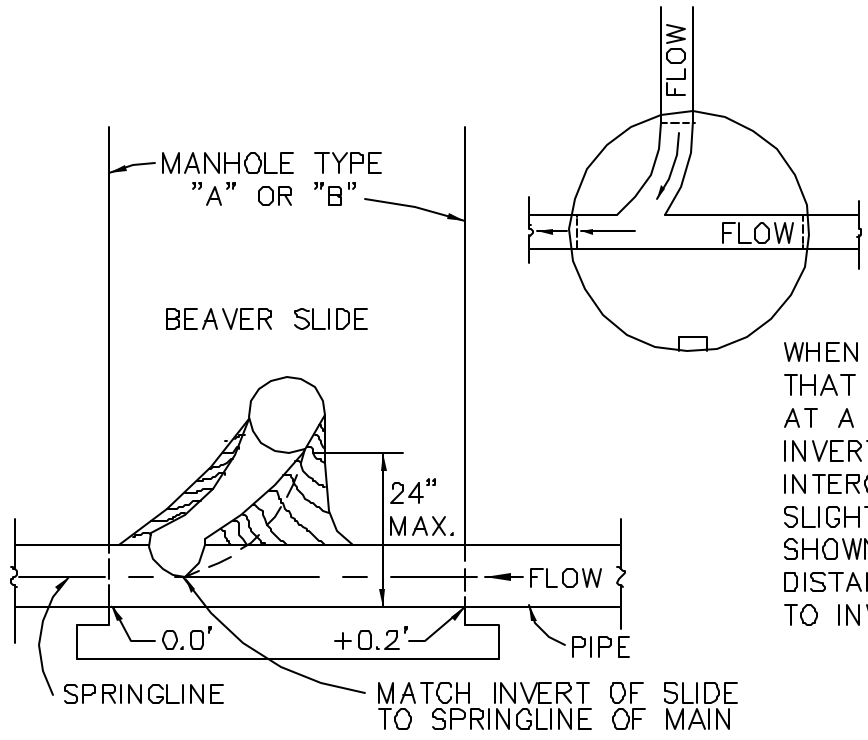
CITY AND BOROUGH OF SITKA

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

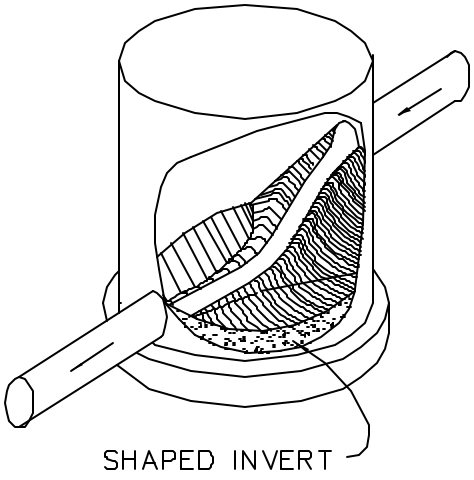
EXTERIOR DROP CONNECTION TYPE A MANHOLE

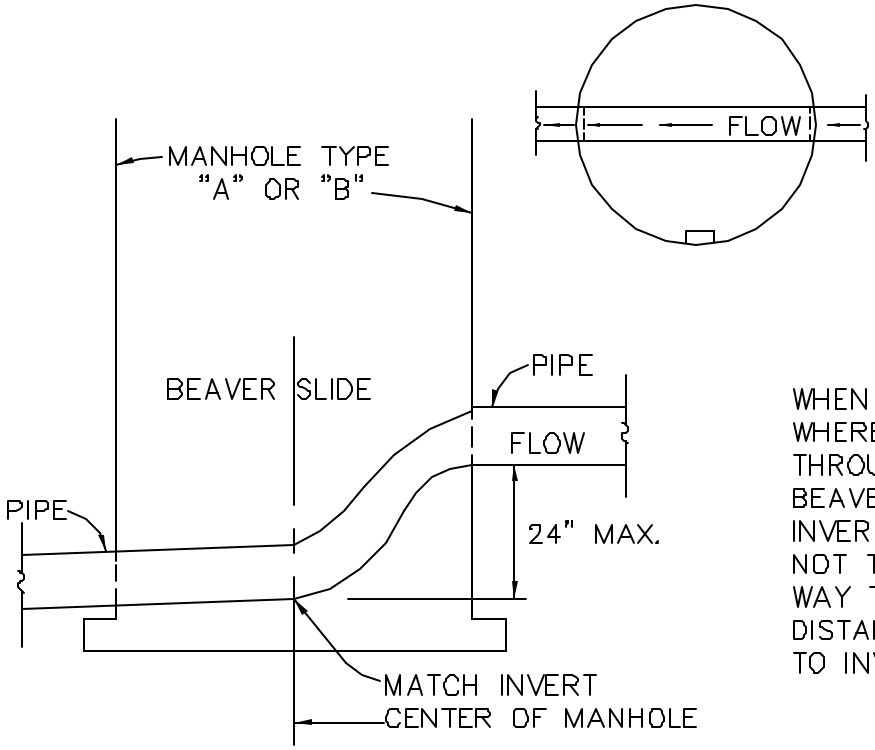
SECTION# 50.06

DETAIL # 50-7



WHEN INSTALLING A BEAVER SLIDE THAT INTERCEPTS AN EXISTING SEWER AT A RIGHT ANGLE, THE CONNECTING INVERT OF THE BEAVER SLIDE IS TO INTERCEPT THE EXISTING SEWER SLIGHTLY ABOVE THE SPRINGLINE AS SHOWN.
DISTANCE MEASURED FROM INVERT TO INVERT.





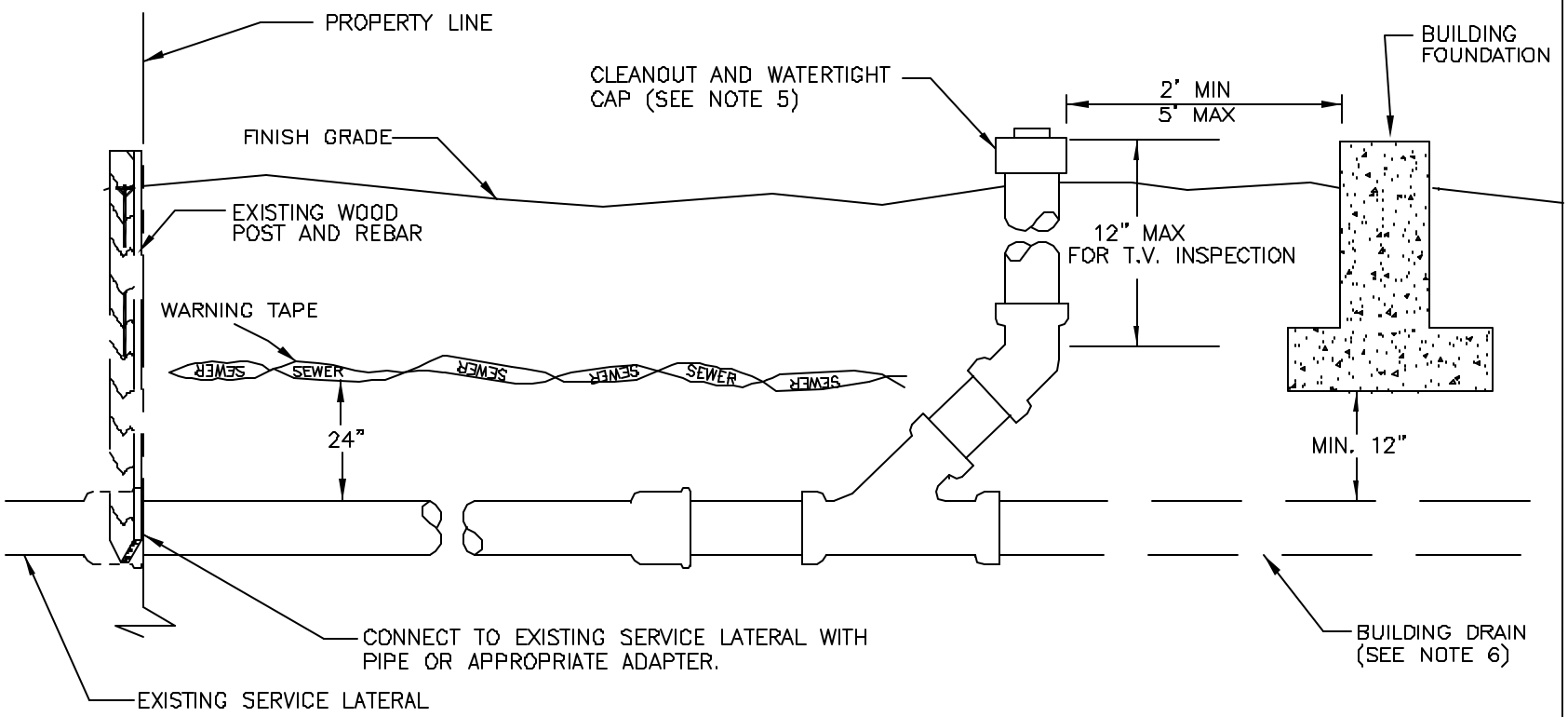
WHEN INSTALLING A BEAVER SLIDE WHERE THE FLOW IS STRAIGHT THROUGH THE MANHOLE, THE BEAVER SLIDE IS TO MATCH THE INVERT OF THE EXISTING LINE AND NOT TO EXTEND MORE THAN HALF-WAY THROUGH THE MANHOLE.
DISTANCE MEASURED FROM INVERT TO INVERT.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# TYPICAL BEAVER SLIDE TYPE A MANHOLE	SECTION # 50.07 DETAIL # 50-8

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

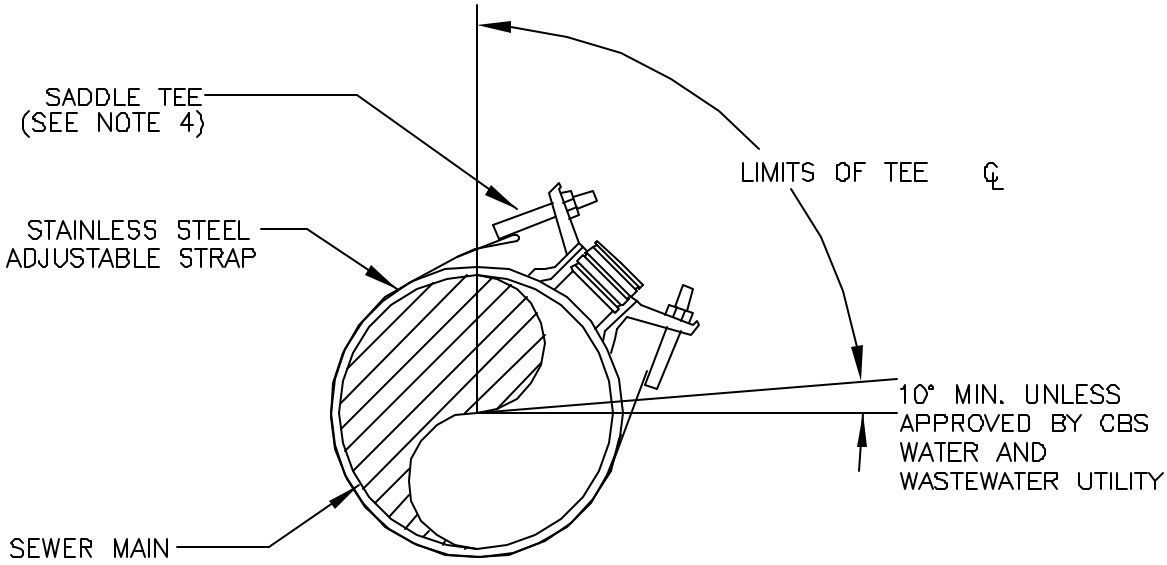
LATERAL CONNECTION TO EXISTING SANITARY SEWER PIPE

SECTION # 50.08
DETAIL # 50-9



NOTES:

1. WHERE DEPTH TO TOP OF PIPE MUST BE LESS THAN 44" INSULATION SHALL BE REQUIRED AS APPROVED BY THE ENGINEER.
2. MINIMUM GRADE SHALL BE 2% (1/4" PER FOOT).
3. MINIMUM PIPE DIAMETER SHALL BE 4".
4. ACCEPTABLE MATERIALS FOR PIPE CONSTRUCTION BETWEEN THE PROPERTY LINE AND THE CLEANOUT AT THE FOUNDATION INCLUDE: PVC (SDR 35 OR THICKER), DUCTILE IRON (CLASS 50), AND CAST IRON (CLASS 2200).
5. CLEANOUT CONSTRUCTED OF "WYE" FITTING AND CAP OF SAME MATERIAL AS PIPE SHALL BE CONSTRUCTED WITHIN 2' TO 5' OF BUILDING FOUNDATION. AN EXTRA CLEANOUT SHALL BE REQUIRED FOR EVERY 100' OF PIPE AND FOR EACH AGGREGATE BEND OF 135°.
6. MATERIALS AND INSTALLATION OF THE BUILDING DRAIN SHALL CONFORM TO THE UNIFORM PLUMBING CODE. (NOTE: SDR 35 PVC IS NOT AN APPROVED MATERIAL FOR USE UNDER OR INSIDE THE FOUNDATION).
7. LATERAL DEPTH OF SANITARY SEWER SERVICE AT PROPERTY LINE SHALL ACCOMODATE EXISTING BUILDING SEWER OR FUTURE BUILDING SITE(S).



NOTES:

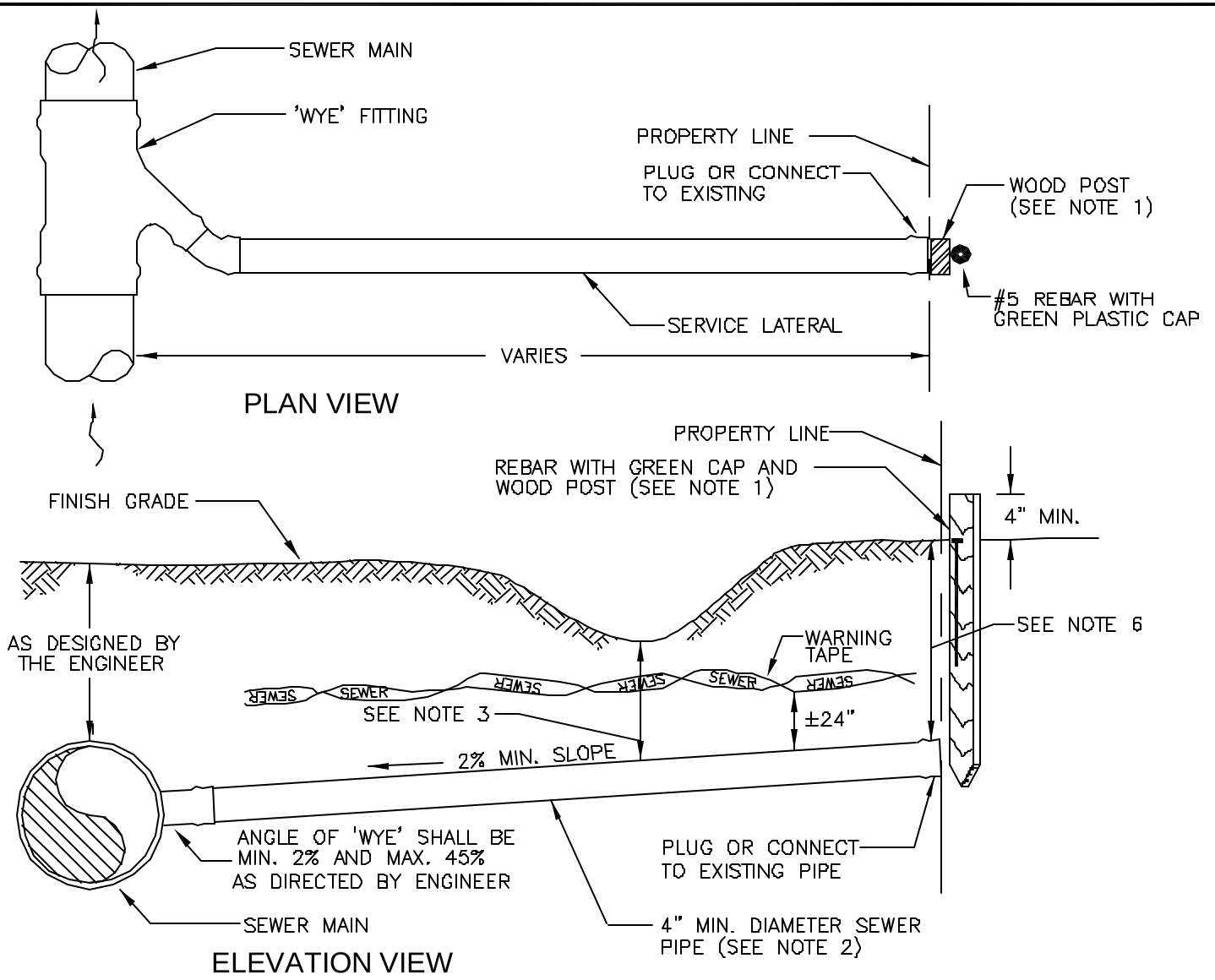
1. DIAMETER OF HOLE CUT IN SEWER MAIN SHALL NOT EXCEED 0.25" LARGER THAN THE SADDLE TEE CONNECTION. TEE SHALL BE CENTERED OVER CUT IN PIPE AND CLAMPED WITH METAL BAND SO TEE GASKET FORMS A WATER–TIGHT SEAL.
2. WATER AND DEBRIS SHALL NOT BE ALLOWED TO ENTER THE SEWER MAIN DURING THE TAPPING OPERATION.
3. THREE (3) MEASURED TIES TO PERMANENT FEATURES AND DISTANCE FROM SADDLE TO MANHOLE MUST BE FURNISHED TO THE CBS ENGINEERING DEPT.
4. SADDLE TEE SHALL BE A ROMAC CB SEWER SADDLE OR AN APPROVED EQUAL.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SANITARY SEWER SADDLE TEE	SECTION # 50.09 DETAIL # 50–10

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

SANITARY SEWER SERVICE CONNECTION

SECTION# 50.10
DETAIL # 50-11



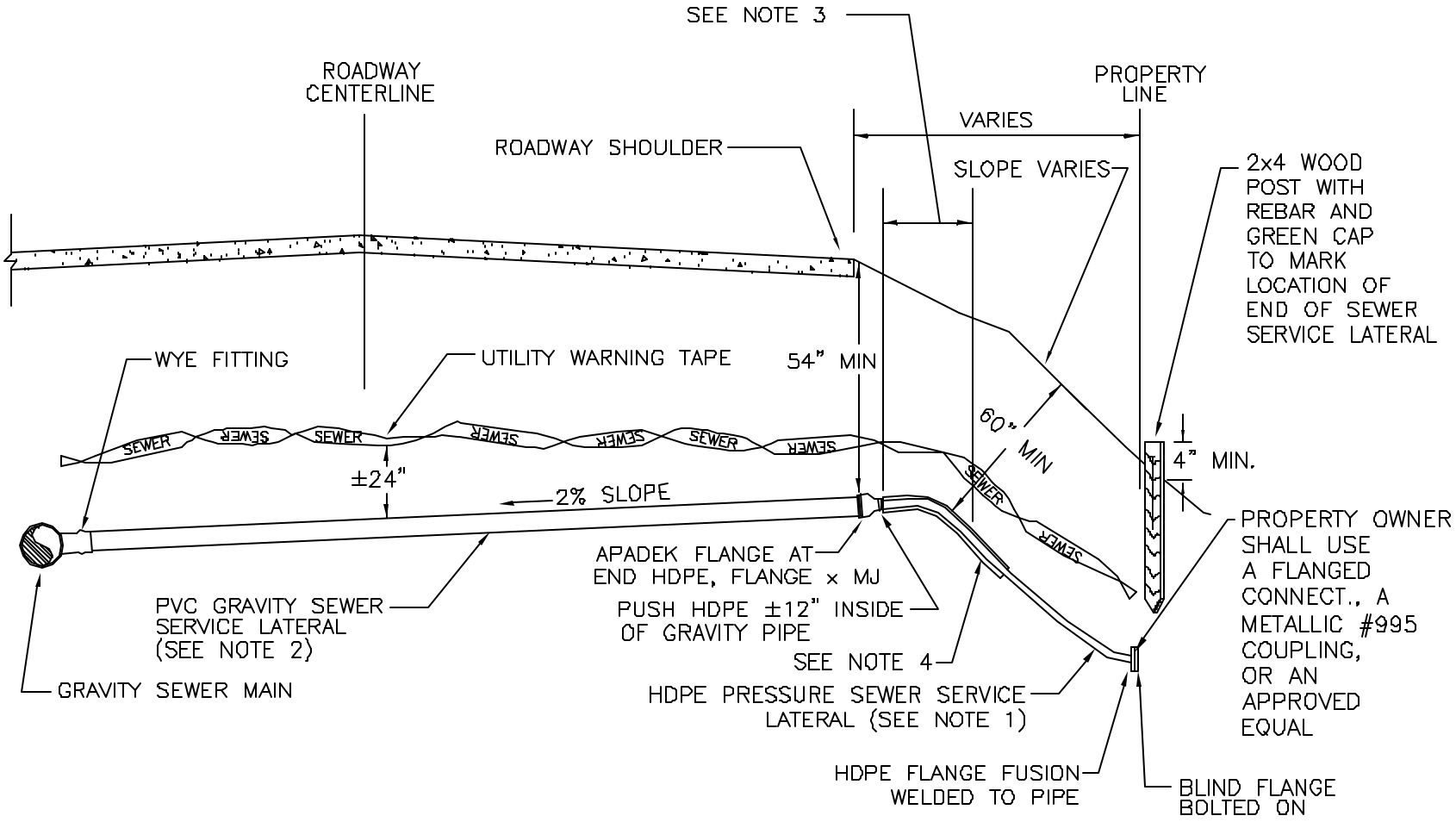
NOTES:

1. MARK SERVICE WITH GREEN PAINTED 2x4 POST OR STAMP "S" IN TOP OF CURB. POST SHALL EXTEND TO DEPTH OF SERVICE LATERAL. REBAR SHALL BE DRIVEN TO GROUND LEVEL.
2. ACCEPTABLE PIPE FOR USE WITHIN R.O.W. INCLUDES C900 PVC, SDR 35 PVC AND DUCTILE IRON.
3. MINIMUM CLEARANCE OF 18" REQUIRED BENEATH DITCH LINE. PIPE WITH LESS THAN 44" OF COVER SHALL BE INSULATED AS APPROVED BY THE ENGINEER.
4. DISTANCE FROM WYE TO MANHOLE AND THREE MEASURED DISTANCES FROM END OF SERVICE PIPE TO PERMANENT OBJECTS SHALL BE NOTED ON AS-BUILT PLANS.
5. SERVICE LATERAL SHALL END AT STAKE WITH A BELL END OF PIPE AND PLUG ASSEMBLY THAT WILL WITHSTAND TEST PRESSURES.
6. LATERAL DEPTH AT PROPERTY LINE SHALL ACCOMODATE EXISTING BUILDING SEWER OR FUTURE BUILDING SITE(S).
7. PIPE CONNECTIONS IN THE RIGHT-OF-WAY THAT DO NOT USE BELL AND SPIGOT SHALL CONFORM TO STANDARD.

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

PRESSURE SANITARY SEWER SERVICE LATERAL

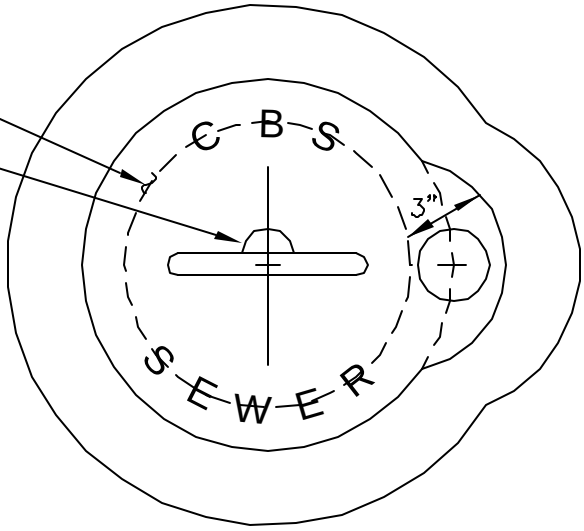
SECTION # 50.10
DETAIL # 50-12



ELEVATION VIEW

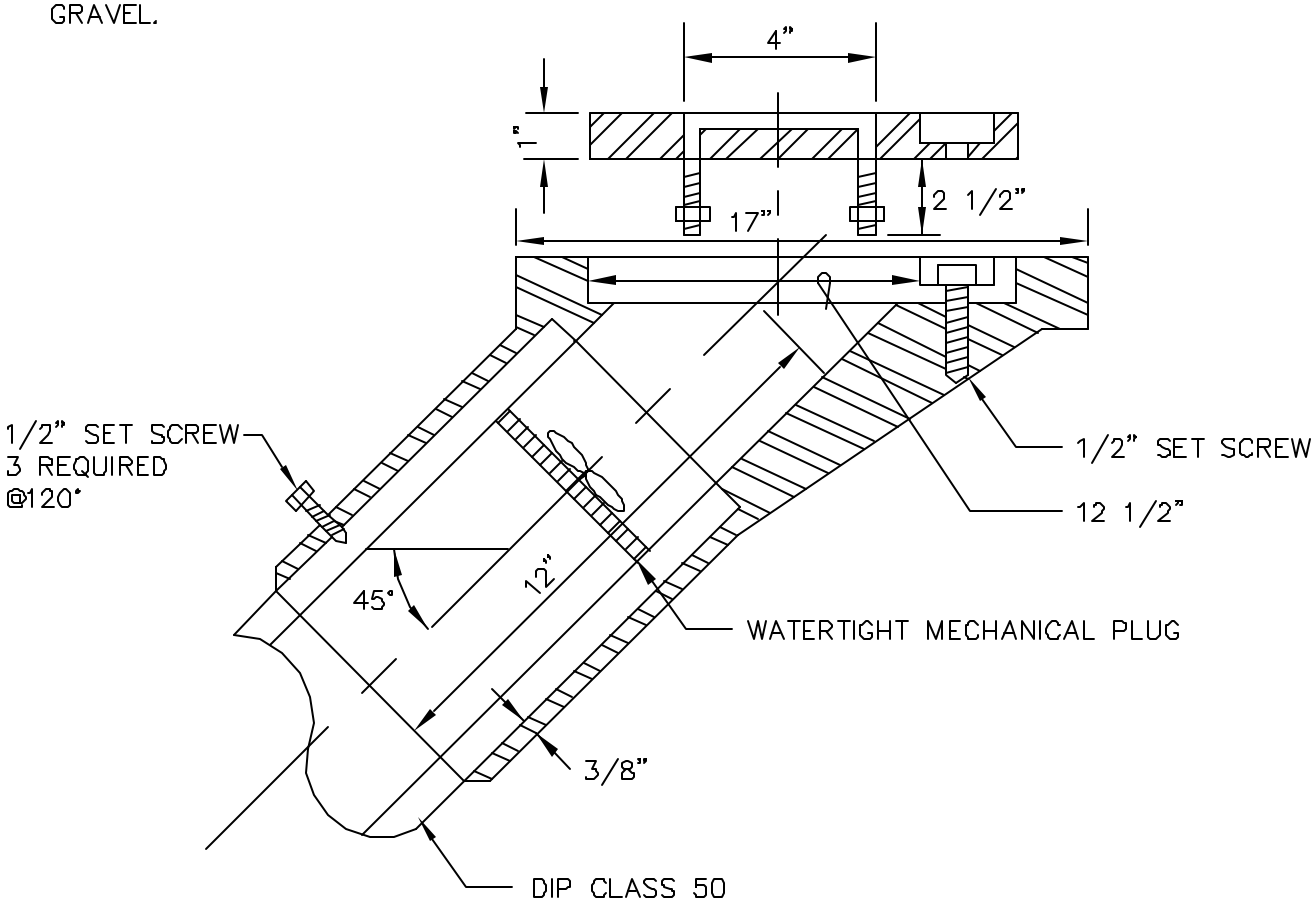
NOTES:

1. HDPE PORTION OF SEWER SERVICE LATERAL SHALL BE CONTINUOUS AND SIZED PER LIFT STATION MANUFACTURER. LENGTH OF PIPE VARIES.
2. EXTEND PVC SEWER LATERAL TO EDGE OF SHOULDER.
3. USE MINIMUM DISTANCE TO BEND PIPE TO INCREASE DEPTH.
4. INSULATE PIPE WITH ONE SIX FOOT LENGTH OF IMCOLOCK WRAPAROUND PIPE INSULATION OR AN APPROVED EQUAL.



NOTES:

1. TO BE CAST.
2. CASTING THICKNESS SUBJECT TO FOUNDRY REQUIREMENTS.
3. CASTING MUST BE SIZED TO 8" AND OVER, CLASS 50 D.I.P.
4. COVER SHALL BE 1/4" BELOW TOP OF PAVEMENT & 6" BELOW GRAVEL.



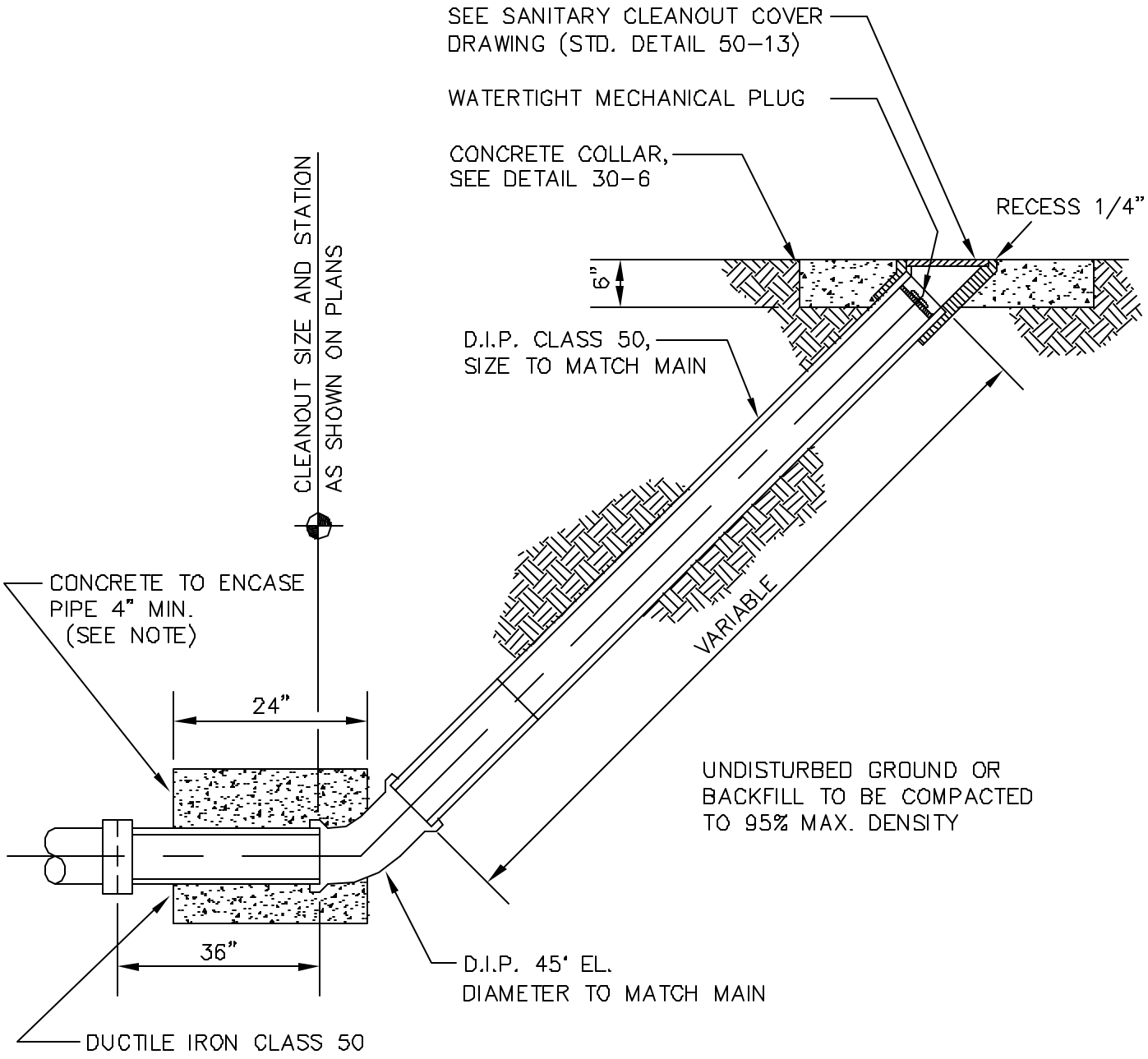
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

SANITARY CLEANOUT COVER

SECTION # 50.12

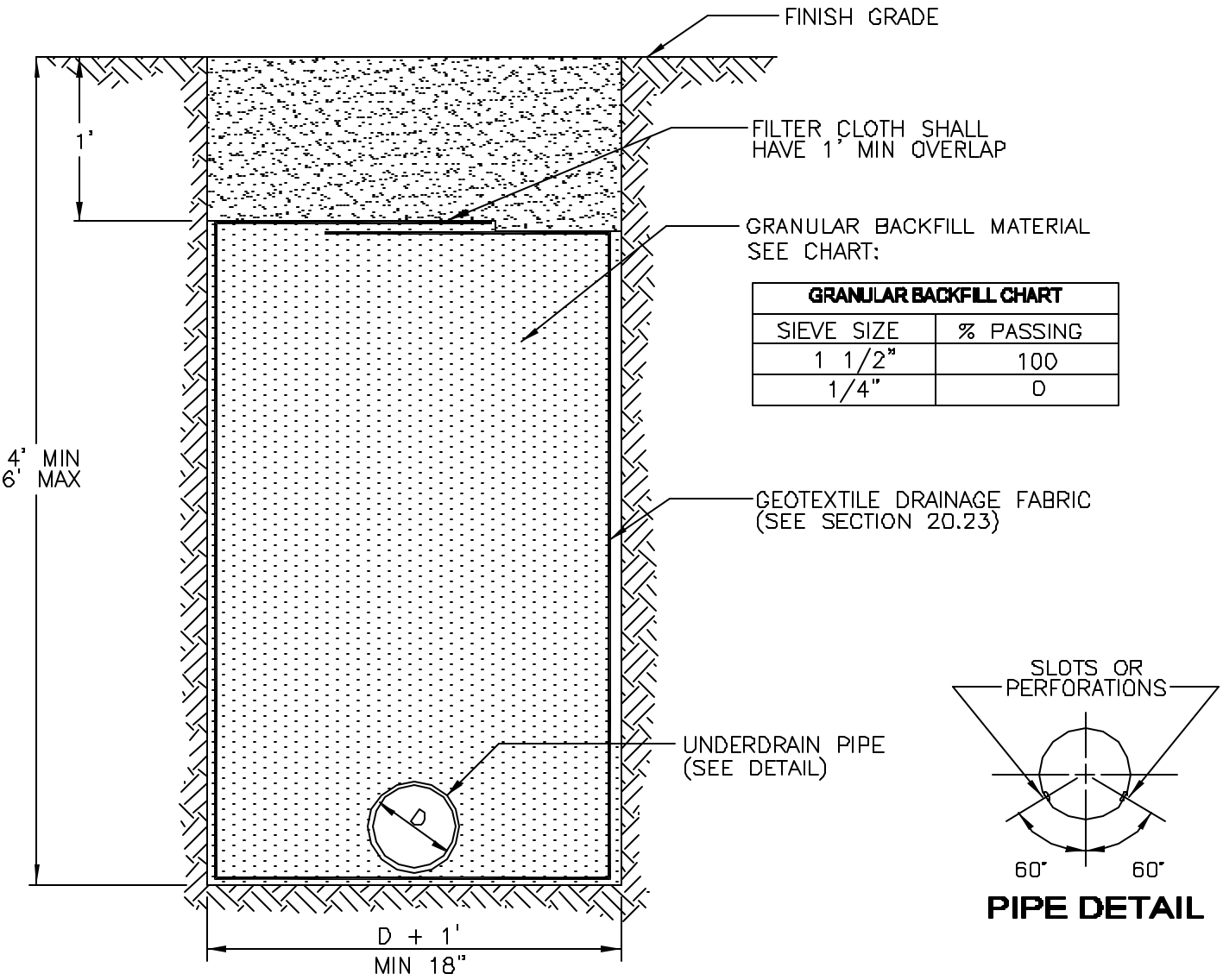
DETAIL # 50-13



NOTE:

WHEN D.I. PIPE WITH MECHANICAL JOINT IS USED, CONCRETE ENCASEMENT IS NOT NECESSARY

CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# SANITARY CLEANOUT	SECTION # 50.12 DETAIL # 50-14



GRANULAR BACKFILL CHART	
SIEVE SIZE	% PASSING
1 1/2"	100
1/4"	0

PIPE DETAIL

NOTES:

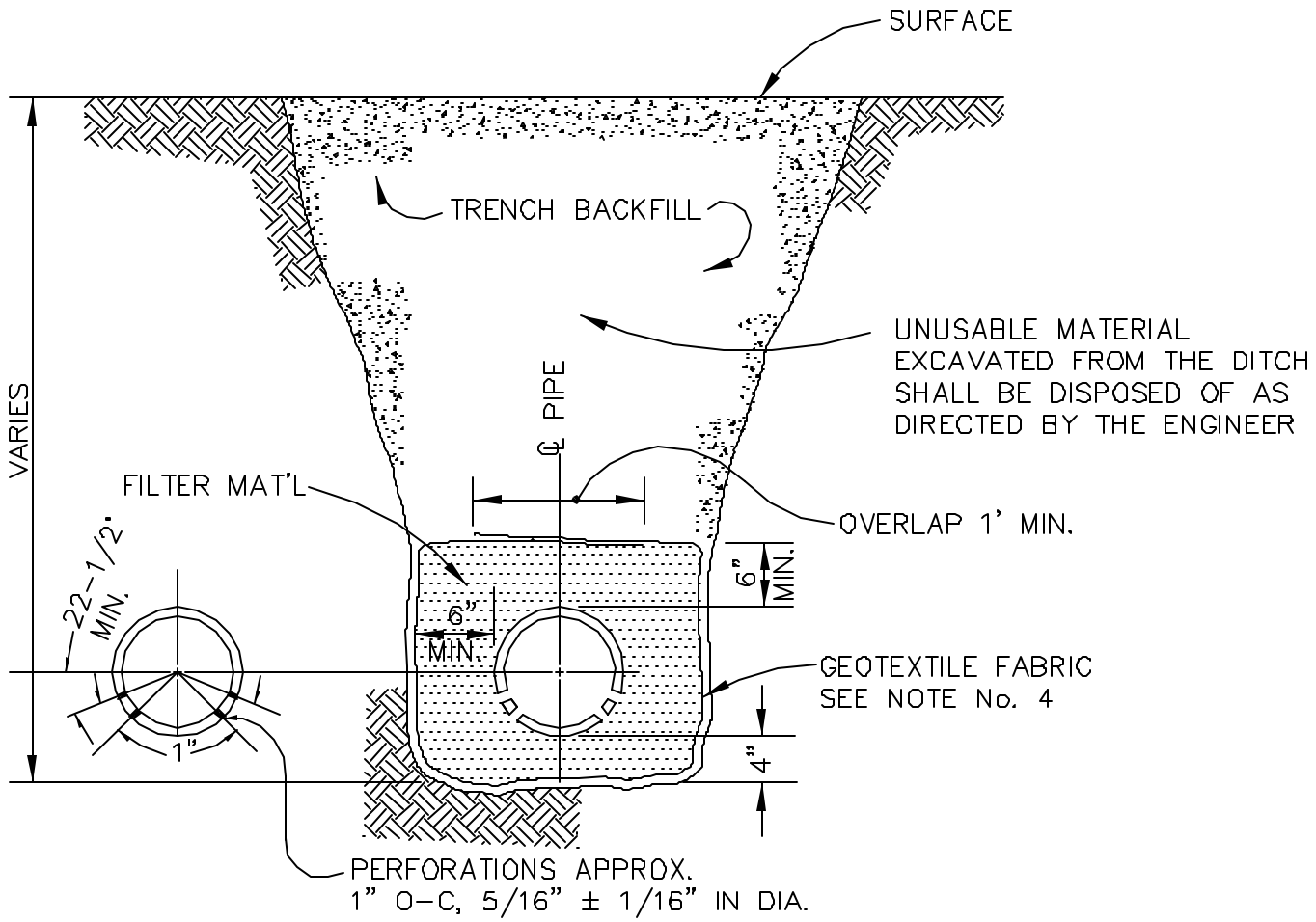
1. WHEN TRENCH IS UNDER A ROADBED, PAVED DITCH, OR OTHER STRUCTURE, THE GRANULAR BACKFILL MATERIAL, AND FILTER CLOTH SHALL COMPLETELY FILL THE TRENCH.
2. THE OUTFALL END OF THE PIPE SHALL BE COVERED WITH GALVANIZED NO. 17 GAGE HARDWARE CLOTH SCREEN WITH 1/2" x 1/2" MESH OPENINGS. THE SCREEN SHALL CLAMPED ON WITH A STAINLESS STEEL CLAMP. THE UPGRADE END OF THE UNDERDRAIN SHALL COMMENCE WITH A CLEANOUT.
3. UNLESS OTHERWISE SHOWN ON PLANS, UNDERDRAIN SHALL BE INSTALLED UNDER THE ROADWAY DITCH.
4. NON-PERFORATED PIPE MAY BE USED AT THE OUTLET ENDS OF UNDERDRAINS AS APPROVED BY THE ENGINEER.
5. EXCEPT WHERE THE UNDERDRAIN OUTLETS INTO A PIPE CULVERT, THE OUTLET END OF THE UNDERDRAIN SHALL BE MARKED WITH A SUITABLE MARKER APPROVED BY THE ENGINEER.
6. STRIP UNDERDRAIN MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.

CITY AND BOROUGH OF SITKA — DECEMBER 1, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

UNDERDRAIN

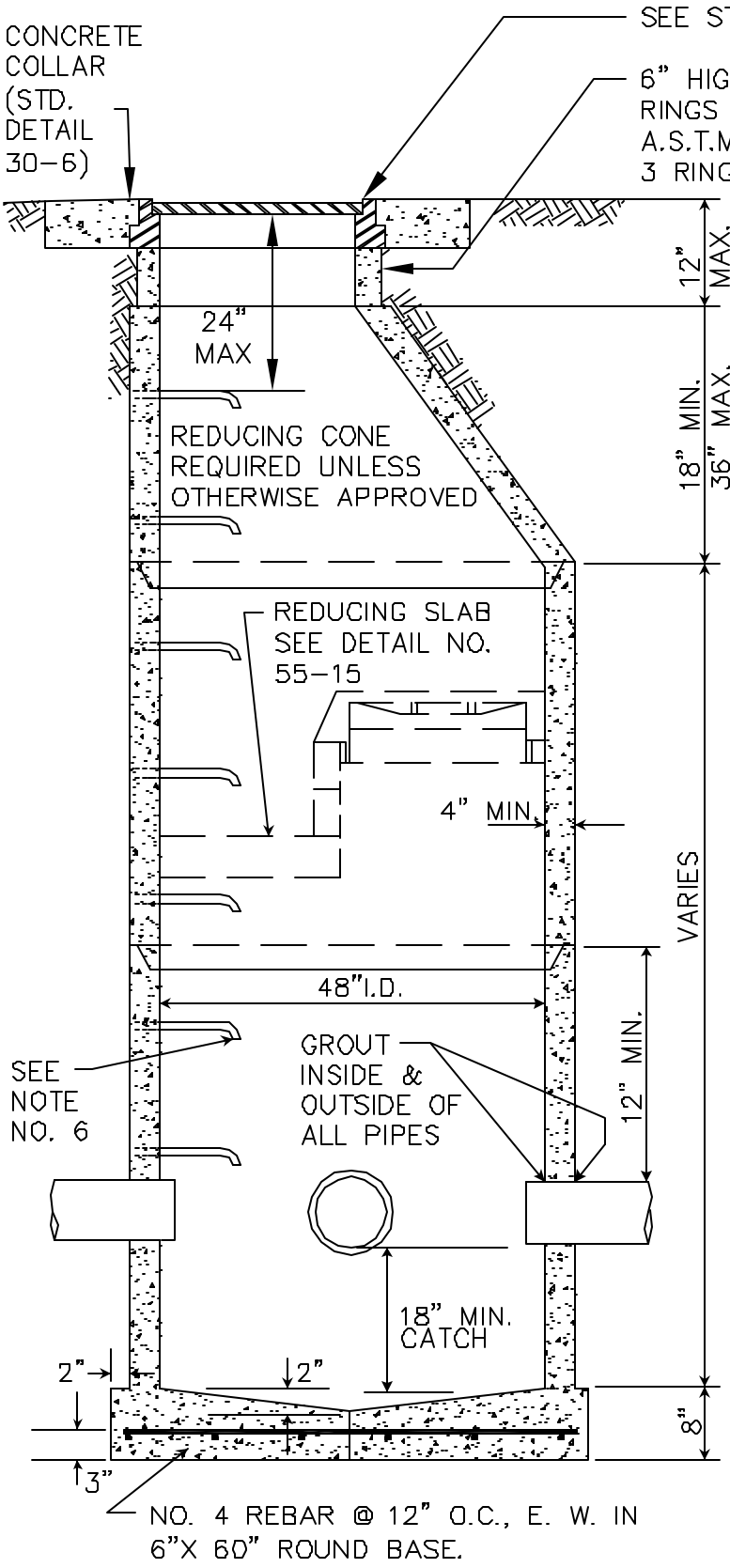
SECTION # 55.03
DETAIL # 55-1



NOTES:

1. FILTER MATERIAL TYPE SHALL BE AS SPECIFIED IN THE BID PROPOSAL.
2. COMPACTION IN PUBLIC RIGHTS-OF-WAY UNDER THE EXISTING OR PROPOSED ROAD PRISM SHALL BE 95% OF MAXIMUM DENSITY, UNLESS OTHERWISE SPECIFIED OR DIRECTED BY THE ENGINEER.
3. TRENCH BACKFILL SHALL BE CLASSIFIED BACKFILL AS CALLED FOR IN THE BID PROPOSAL.
4. GEOTEXTILE FABRIC SHALL BE A NON-WOVEN MATERIAL AS PER THE SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SUBDRAIN	SECTION 55.03 DETAIL 55-2



NOTES:

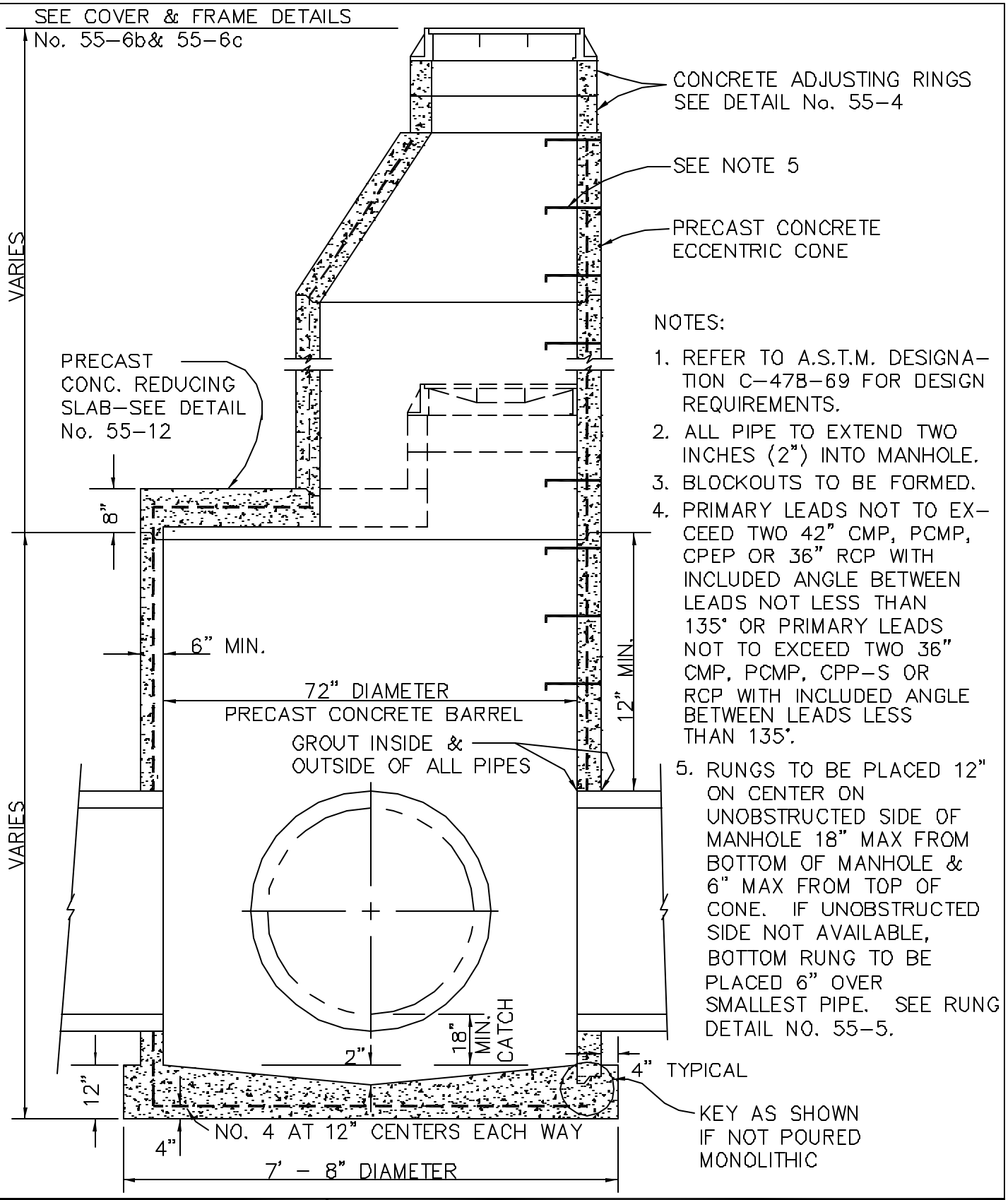
1. REFER TO A.S.T.M. DESIGNATION C-470-69 FOR DESIGN RE-QUIREMENTS.
2. SEE MANHOLE FRAME & COVER DETAIL NO. 55-6b & 55-6c.
3. MIN. STEEL REQ'D FOR BARREL AS PER A.S.T.M. C-478-69 SHALL BE EMBEDDED IN BASE SO THAT FIRST BARREL SECTION IS CONNECTED WITH BASE.
4. PRIMARY LEADS NOT TO EXCEED 30" CPP-S WITH INCLUDED ANGLE BETWEEN LEADS NO LESS THAN 135° OR PRIMARY LEAD NOT TO EXCEED 24" CPP-S WITH INCLUDED ANGLE LESS THAN 135°.
5. BLOCKOUTS TO BE FORMED.
6. RUNGS TO BE PLACED 12" ON CENTER ON UNOBSTRUCTED SIDE OF MANHOLE 18" MAX. FROM BOTTOM OF MANHOLE & 6" MAX. FROM TOP OF CONE. IF UNOB-STRUCTED SIDE NOT AVAILABLE, BOTTOM RUNG TO BE PLACED 6" OVER SMALLEST PIPE. SEE RUNG (MANHOLE STEP) DETAIL NO. 55-5.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

STORM DRAIN MANHOLE TYPE I

SECTION # 55.04
DETAIL # 55-3



NOTES:

1. REFER TO A.S.T.M. DESIGNATION C-478-69 FOR DESIGN REQUIREMENTS.
2. ALL PIPE TO EXTEND TWO INCHES (2") INTO MANHOLE.
3. BLOCKOUTS TO BE FORMED.
4. PRIMARY LEADS NOT TO EXCEED TWO 42" CMP, PCMP, CPEP OR 36" RCP WITH INCLUDED ANGLE BETWEEN LEADS NOT LESS THAN 135° OR PRIMARY LEADS NOT TO EXCEED TWO 36" CMP, PCMP, CPP-S OR RCP WITH INCLUDED ANGLE BETWEEN LEADS LESS THAN 135°.
5. RUNGS TO BE PLACED 12" ON CENTER ON UNOBSTRUCTED SIDE OF MANHOLE 18" MAX FROM BOTTOM OF MANHOLE & 6" MAX FROM TOP OF CONE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, BOTTOM RUNG TO BE PLACED 6" OVER SMALLEST PIPE. SEE RUNG DETAIL NO. 55-5.

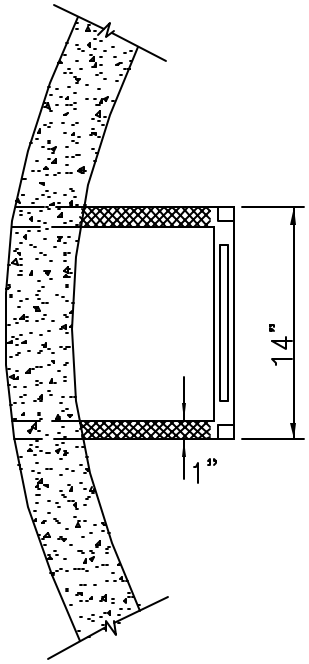
CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

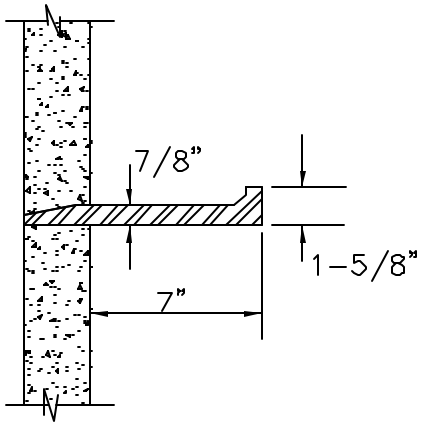
STORM DRAIN MANHOLE TYPE II

SECTION
55.04

DETAIL
55-4



NOTE:
STEPS SHALL BE LANE POLYETHYLENE 14" LADDER STEPS, OR APPROVED EQUAL. STEPS SHALL BE INSTALLED IN ACCORDANCE WITH MANHOLE STEP MANUFACTURER'S RECOMMENDATIONS.

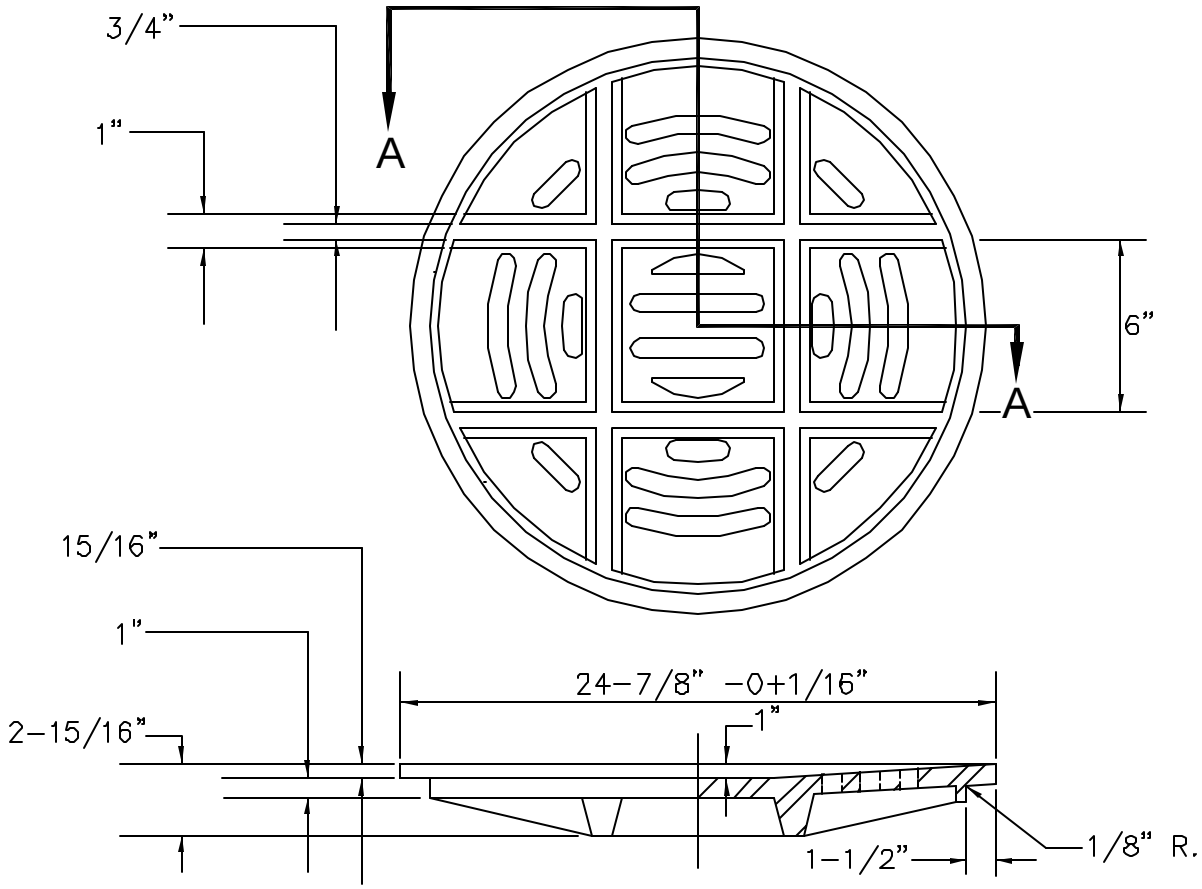


SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

MANHOLE STEP

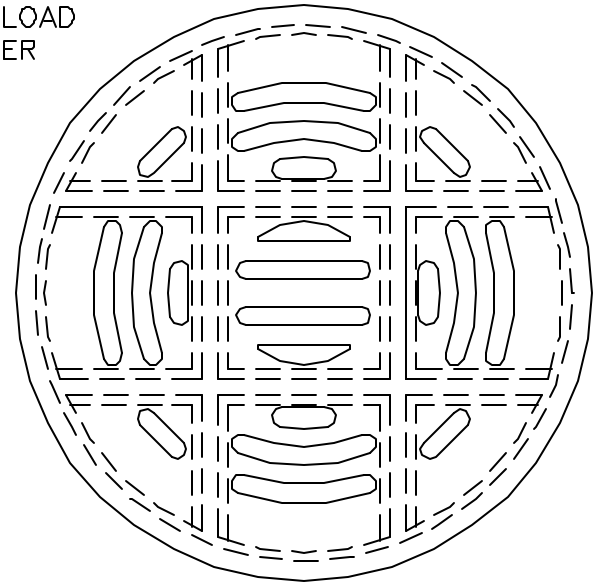
SECTION
55.04

DETAIL
55-5



SECTION A-A

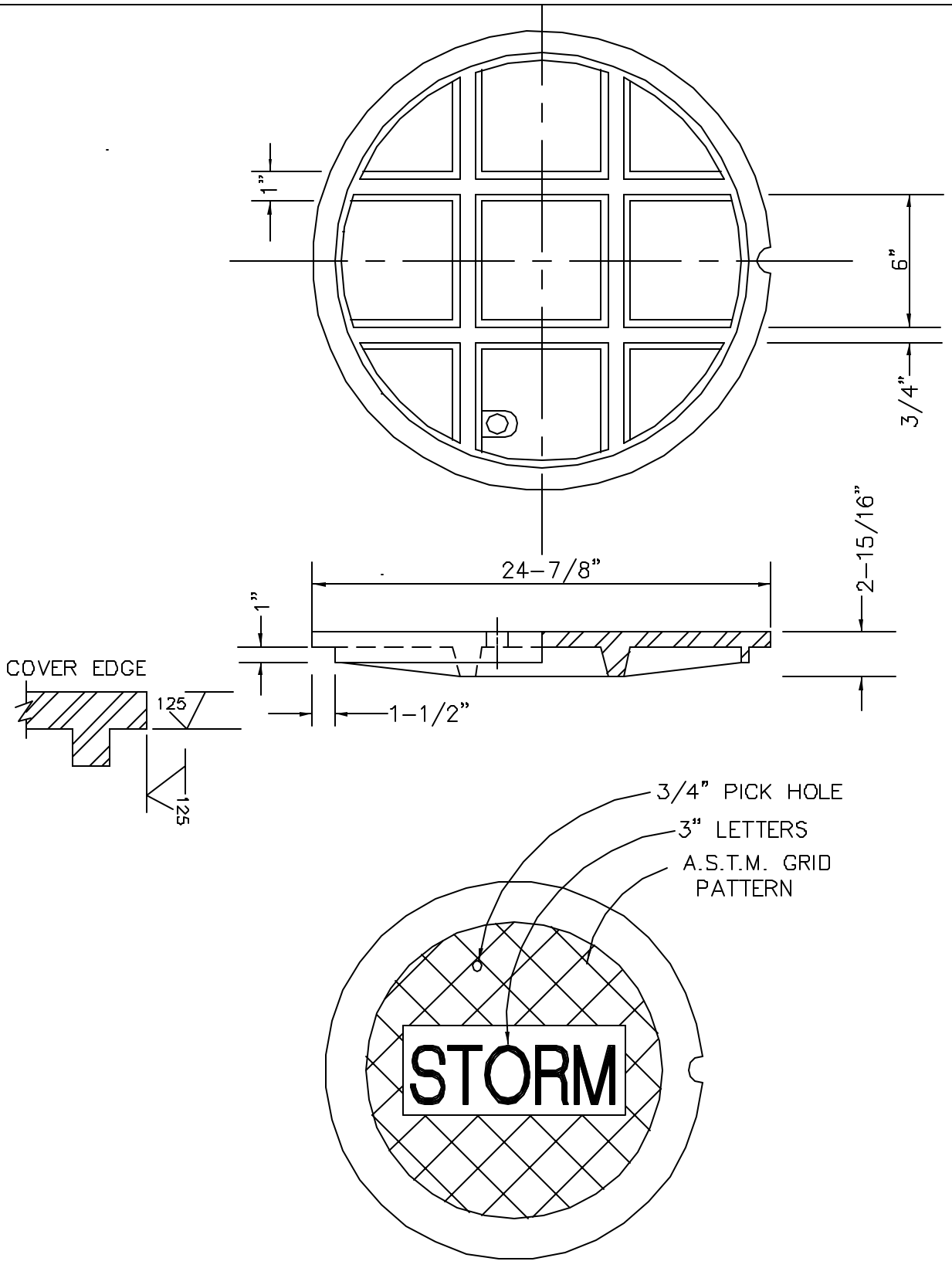
STRENGTH REQUIREMENT FOR TRANSVERSE BREAKING LOAD SHALL BE 2000 P.S.I. PER A.S.T.M. A-438



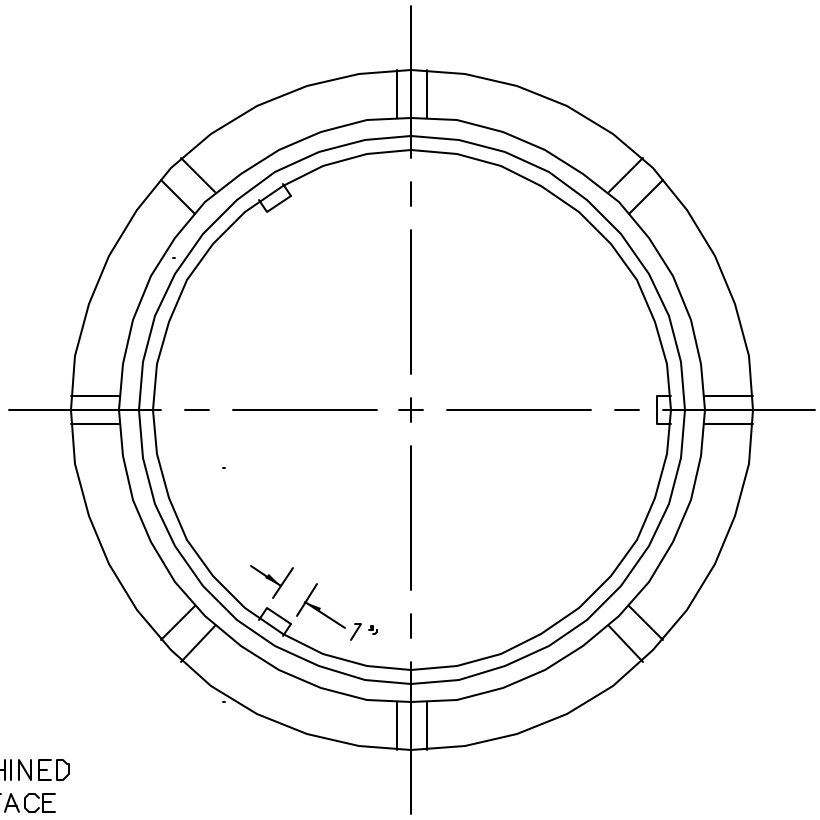
NOTES:

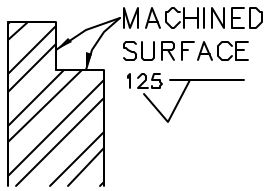
1. FRAME AND GRATE SHALL BE DUCTILE IRON.
2. FRAME AND GRATE SHALL BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR PEDESTRIANS OR BICYCLE TRAFFIC.
3. FRAME AND GRATE SHALL MEET OR EXCEED H-20 LOADING REQUIREMENTS.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TOP INTAKE USE WITH STANDARD GRADE RING	SECTION # 55.04 DETAIL # 55-6

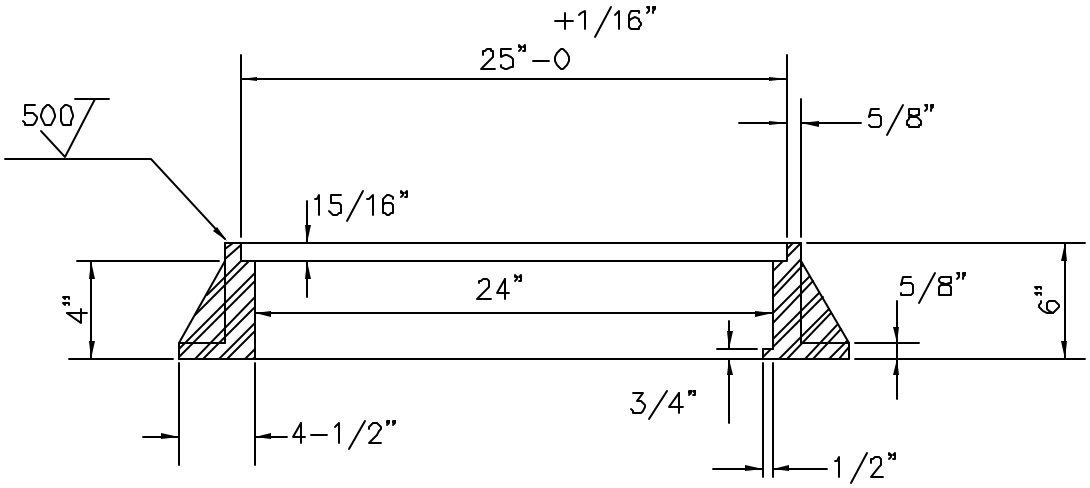


CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	MANHOLE COVER SOLID LID	SECTION# 55.05 DETAIL # 55-6b

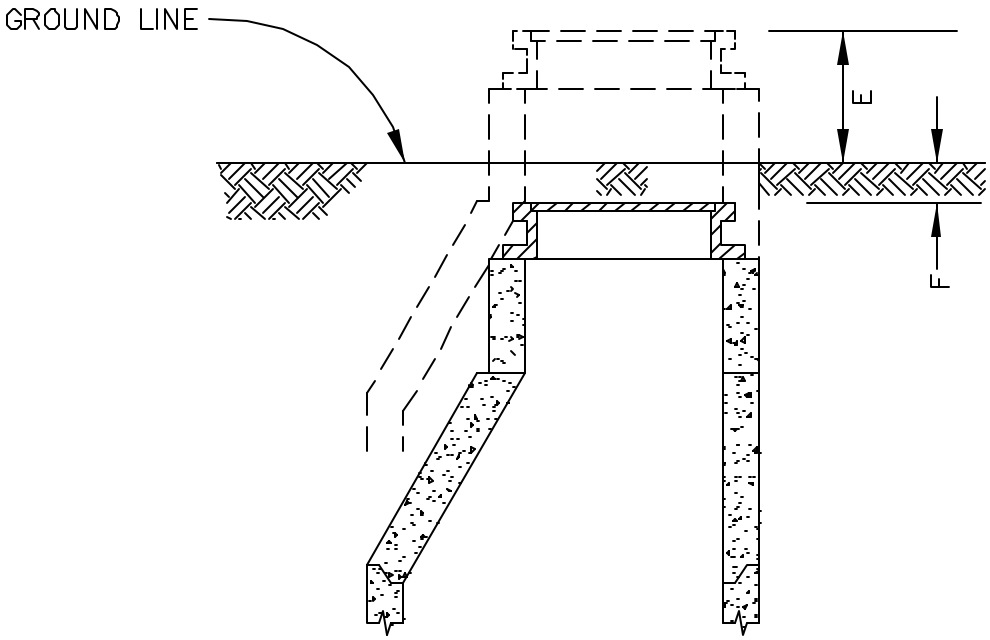




FRAME



CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	MANHOLE FRAME	SECTION # 55.05 DETAIL # 55-6c

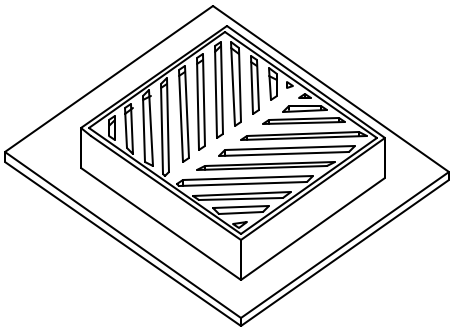


LOCATION	E	F
BACKYARDS, GRAVEL STREETS, AND ALLEY AREAS WHERE TRAVELED.		6"
UNDEVELOPED AND SWAMPY AREAS.	24" MIN	
HIGHWAY R.O.W.'S OUTSIDE TRAFFIC AREAS.	6"	
PAVED STREETS.		1/4"

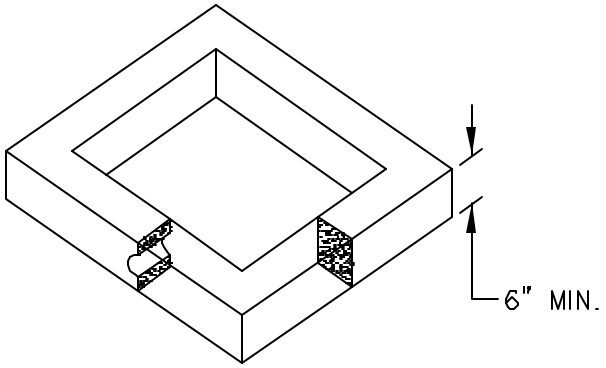
SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

MANHOLE HEIGHTS

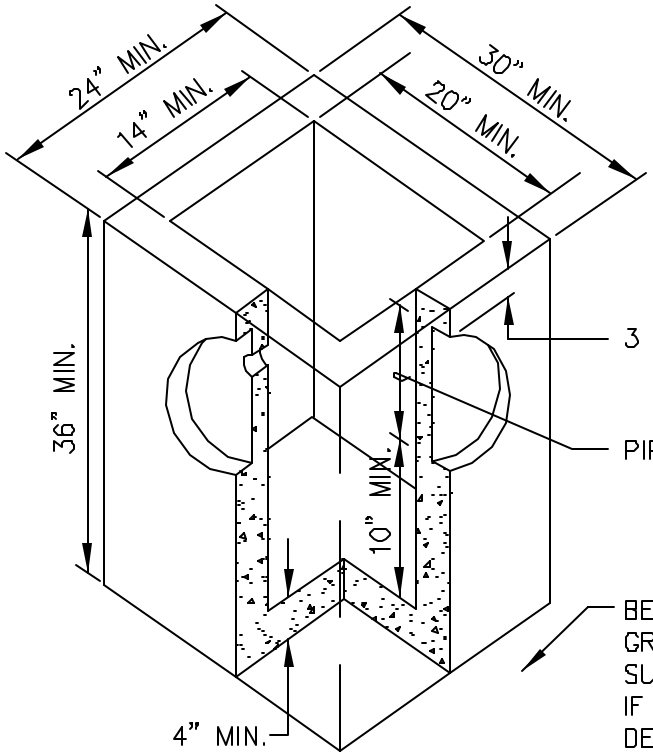
SECTION # 55.04
DETAIL # 55-7



FRAME AND GRATE



CONCRETE SECTION



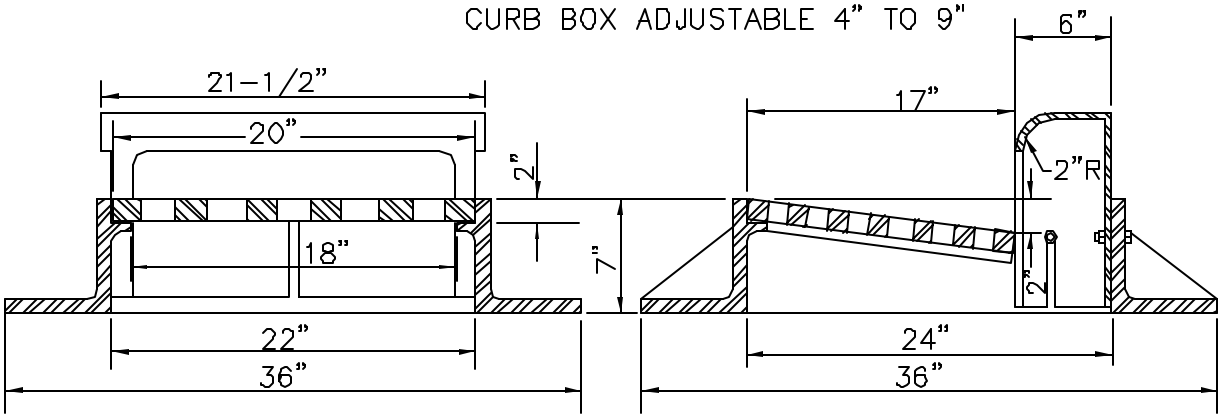
BED WITH MIN. OF 12" BASE COURSE, GRADING D-1. EXISTING NON-FROST SUSCEPTIBLE MATERIALS MAY BE USED IF COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM D-1557.

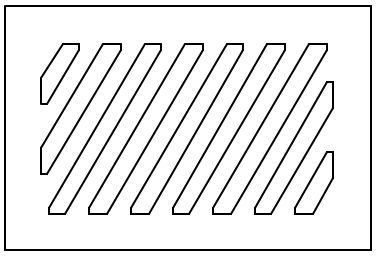
CATCH BASIN

NOTES:

1. FOR USE WITH TWO INLET/OUTLET PIPES OF 12" DIAMETER OR SMALLER. FOR LARGER AND/OR MORE INLET/OUTLET PIPES, OR IF CATCH BASIN IS DEEPER THAN 4', INSTALL A TYPE I OR TYPE II STORM DRAIN MANHOLE (SEE CBS DETAILS 55-3 & 55-4).
2. ENTIRE KNOCKOUT IS TO BE REMOVED AND SEALED SHUT AROUND PIPE. ALL PIPES ARE TO EXTEND 1" MIN. AND 2" MAX. INTO CATCH BASIN. GROUT INTERIOR AND EXTERIOR BETWEEN FRAME, SECTIONS, AND CATCH BASIN.
3. FRAME AND GRATE SHALL BE DUCTILE IRON. FRAME MAY BE CAST INTO THE TOP UNIT OR PLACED OVER THE OPENING AS APPROVED BY THE ENGINEER. FRAME AND GRATE MUST BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.
4. CATCH BASIN SHALL MEET HIGHWAY STANDARD-20 LOAD REQUIREMENTS.
5. MINIMUM STEEL SHALL BE SPECIFIED BY ASTM C-478-69.

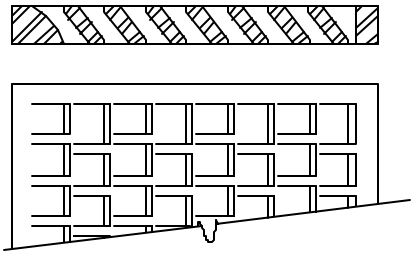
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	PRECAST CATCH BASIN, TYPE I	SECTION # 55.04 DETAIL # 55-8



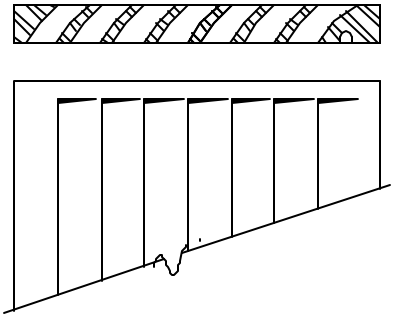


CURB INLET FRAME, GRATE AND CURB BOX

ILLUSTRATING NEENAH R-3065 WITH TYPE DR REVERSIBLE GRATE. FOR OPPOSITE HAND FLIP GRATE TOP TO BOTTOM.



ALTERNATE TYPE L GRATE

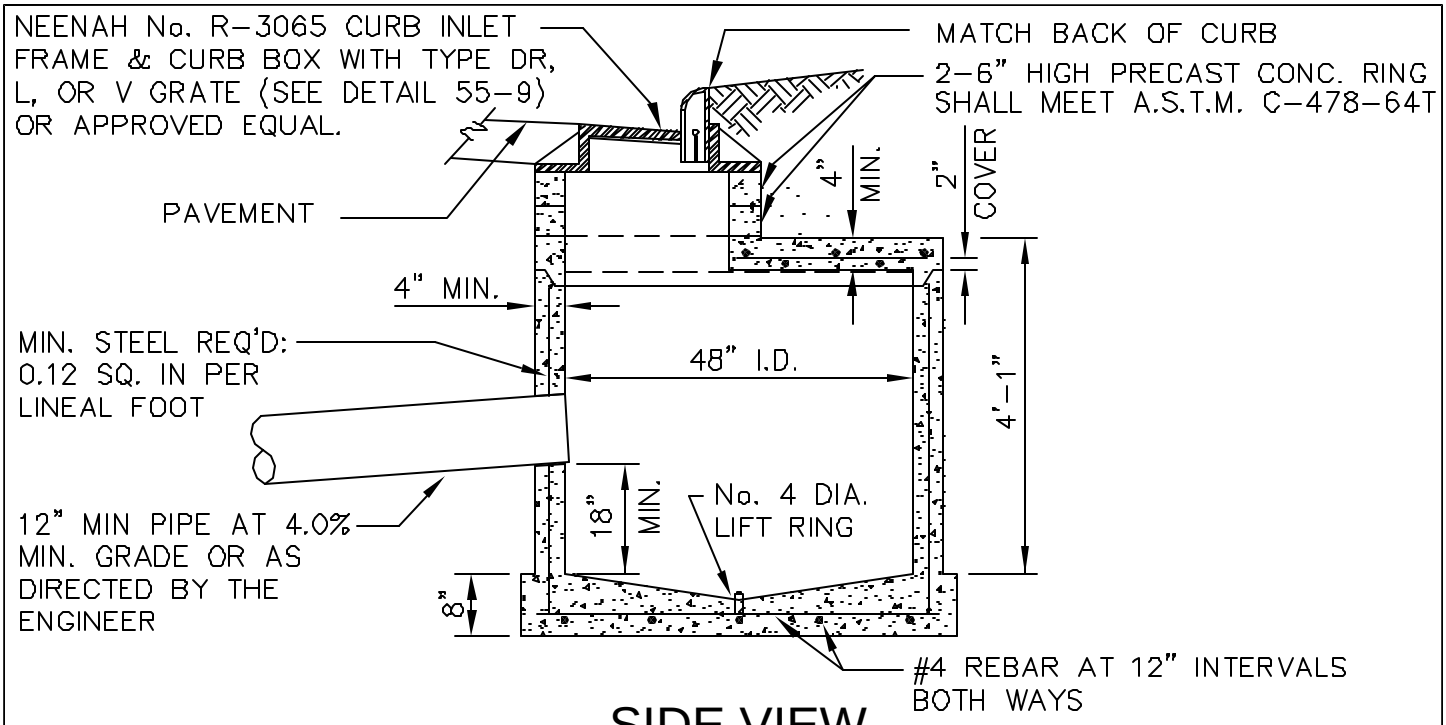


ALTERNATE TYPE V GRATE

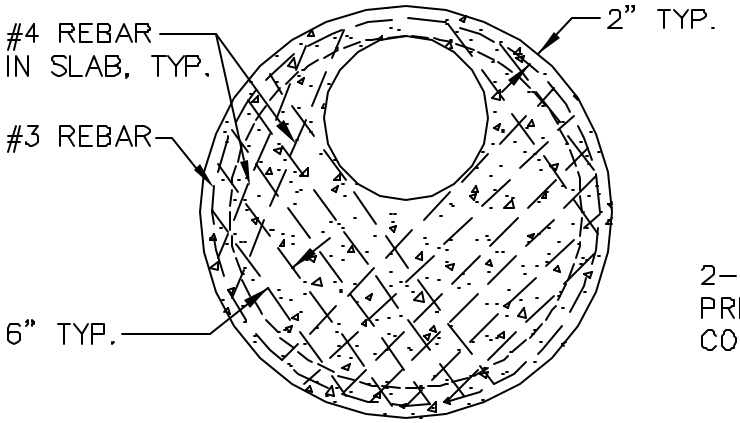
NOTES:

1. FRAME AND GRATE SHALL BE DUCTILE IRON AND SHALL BE IFCO 571 OR AN APPROVED EQUAL.
2. GRATE SHALL HAVE 1" DIAGONAL BARS WITH 1 1/2" OPENINGS.
3. FRAME AND GRATE SHALL BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.
4. INSTALL RIGHT OR LEFT GRATES FOR BICYCLE SAFETY AS DETERMINED BY THE ENGINEER.

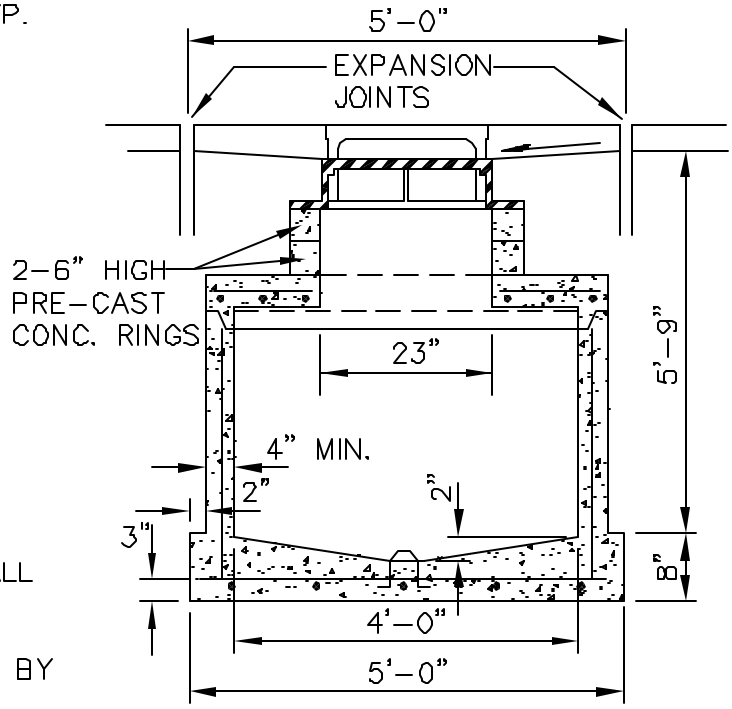
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CATCH BASIN INLET FOR TYPE I CURB & GUTTER	SECTION 55.04 DETAIL 55-9



SIDE VIEW



REDUCING SLAB

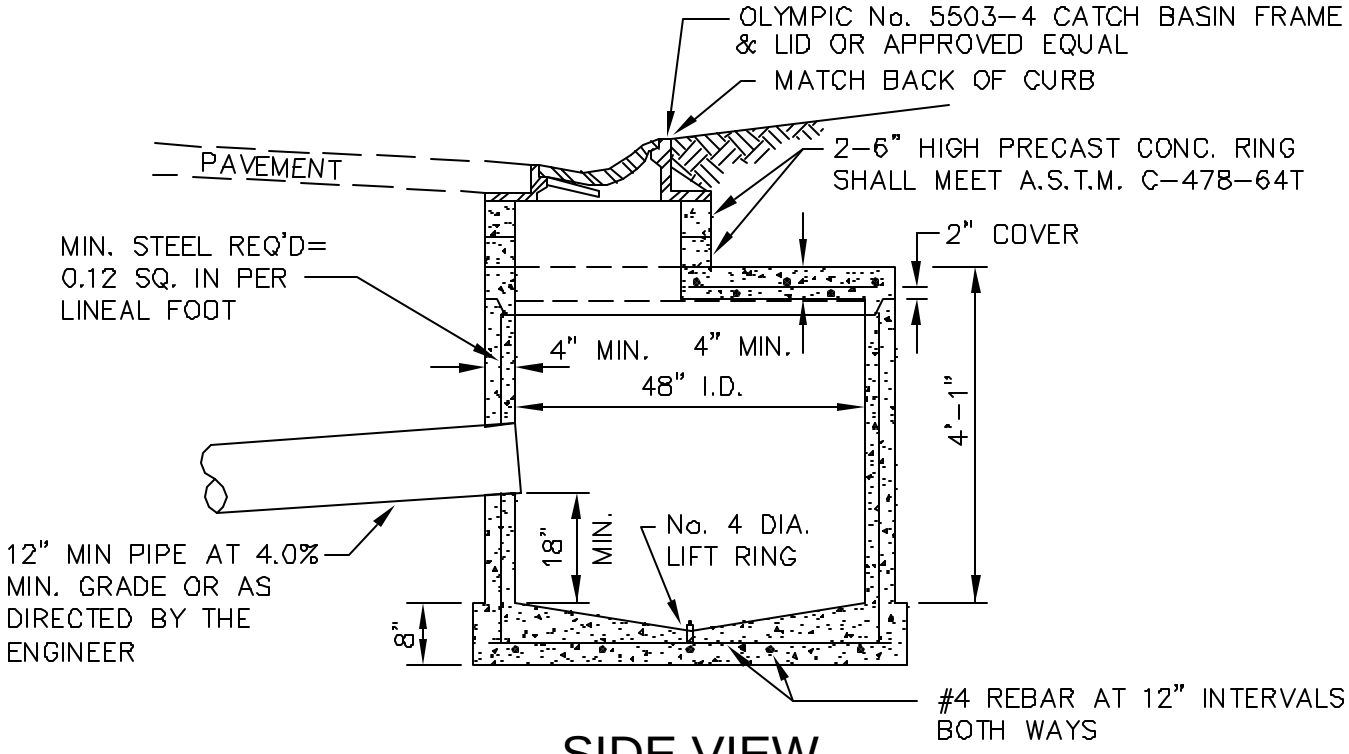


FRONT VIEW

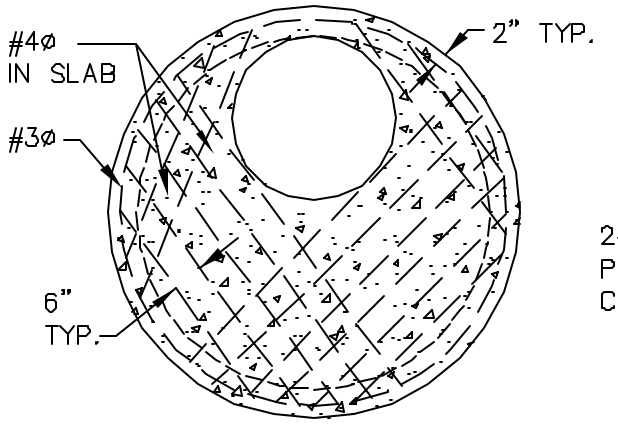
NOTES:

1. COMPRESSIVE STRENGTH OF CONC. SHALL BE MINIMUM 4000 P.S.I. EXCEPT BASE SLAB WHICH MAY BE 3000 P.S.I. BASE & BARREL SHALL BE CONNECTED BY CONTINUOUS STEEL.
2. SEE ASTM C-478-64T FOR DESIGN REQUIREMENTS.
3. AT CATCH BASIN, DELETE CONC. CURB AND GUTTER , PAVE TO FACE OF CATCH BASIN INLET.

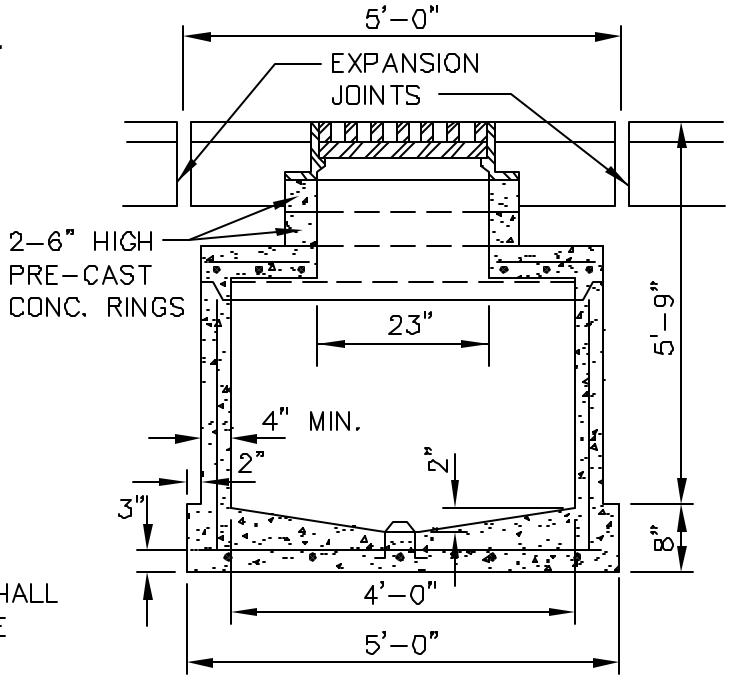
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	PRECAST CATCH BASIN FOR TYPE II CURB & GUTTER	SECTION # 55.04 DETAIL # 55-10



SIDE VIEW



REDUCING SLAB

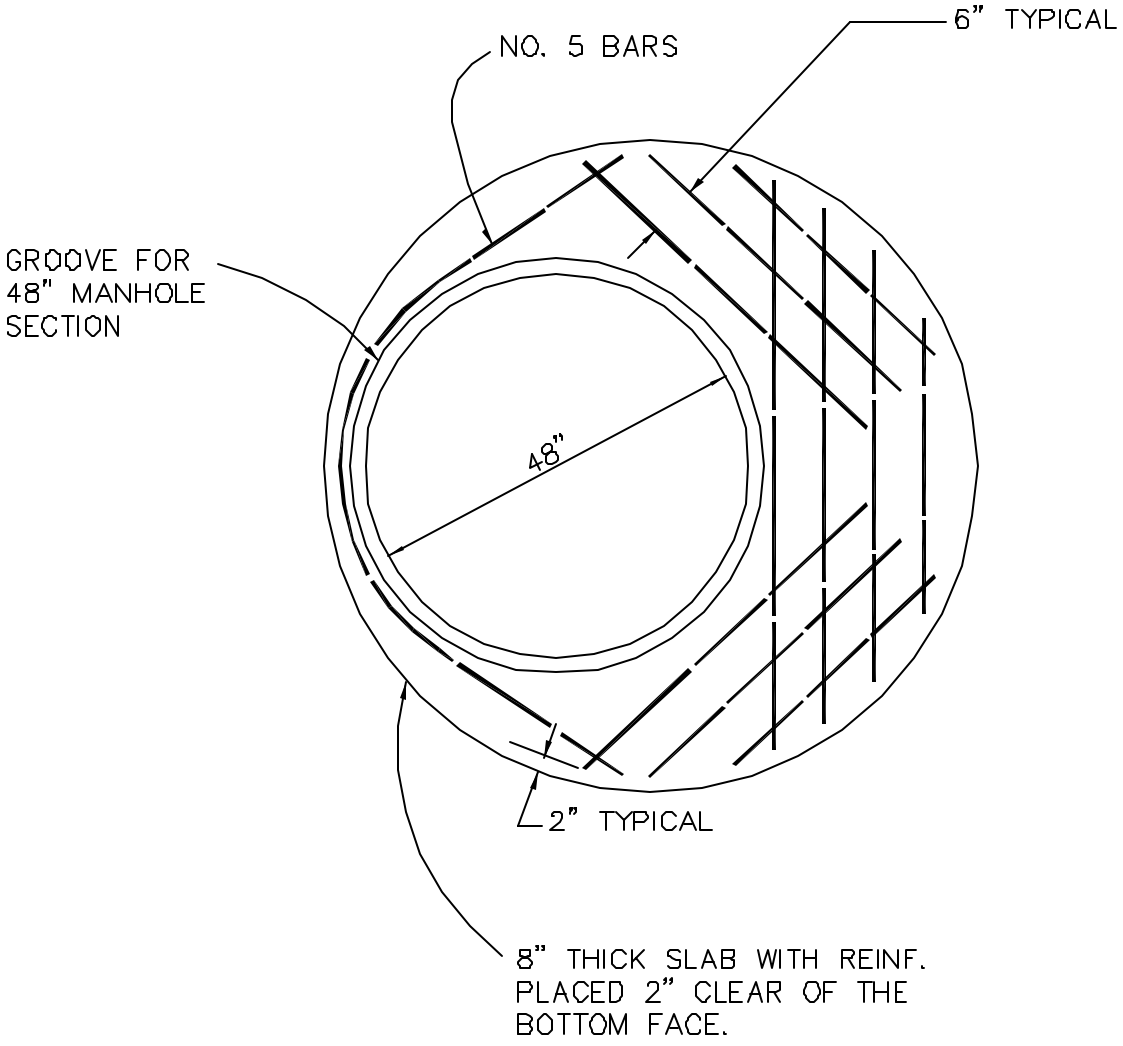


FRONT VIEW

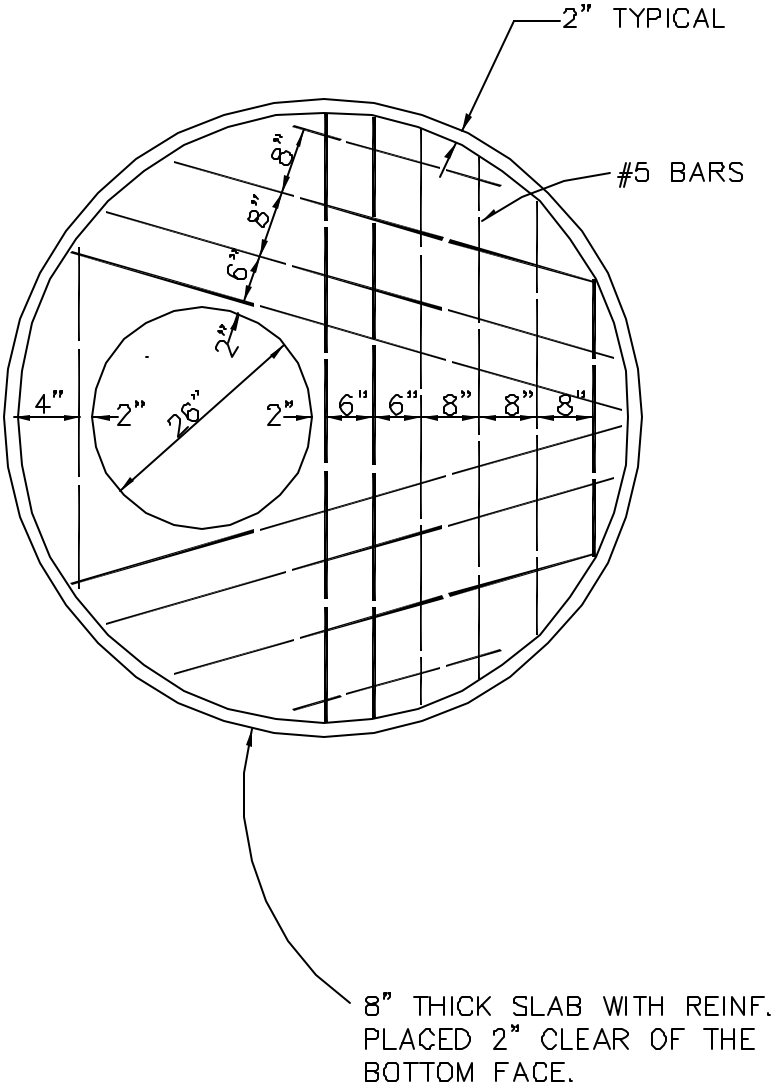
NOTES:

1. COMPRESSIVE STRENGTH OF CONC. SHALL BE MINIMUM 4000 P.S.I. EXCEPT BASE SLAB WHICH MAY BE 3000 P.S.I. BASE & BARREL SHALL BE CONNECTED BY CONTINUOUS STEEL.
2. SEE ASTM C-478-64T FOR DESIGN REQUIREMENTS.
3. AT CATCH BASIN, DELETE CONC. CURB & GUTTER, PAVE TO FACE OF CATCH BASIN INLET.

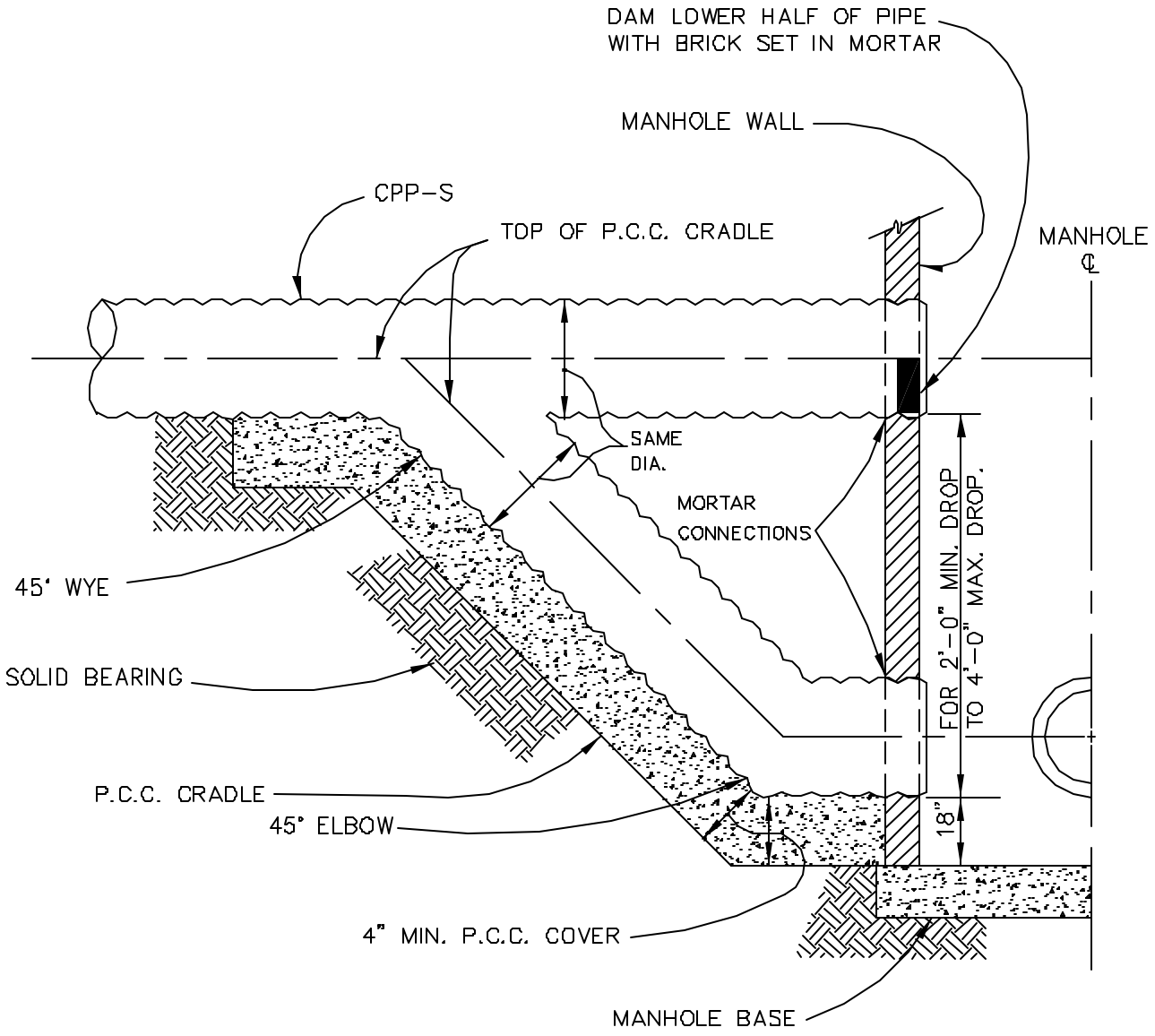
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	PRECAST CATCH BASIN, TYPE II FOR TYPE II CURB & GUTTER	SECTION # 55.04 DETAIL # 55-11



CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	PRECAST CONCRETE REDUCING SLAB (72" TO 48")	SECTION # 55.04 DETAIL # 55-12



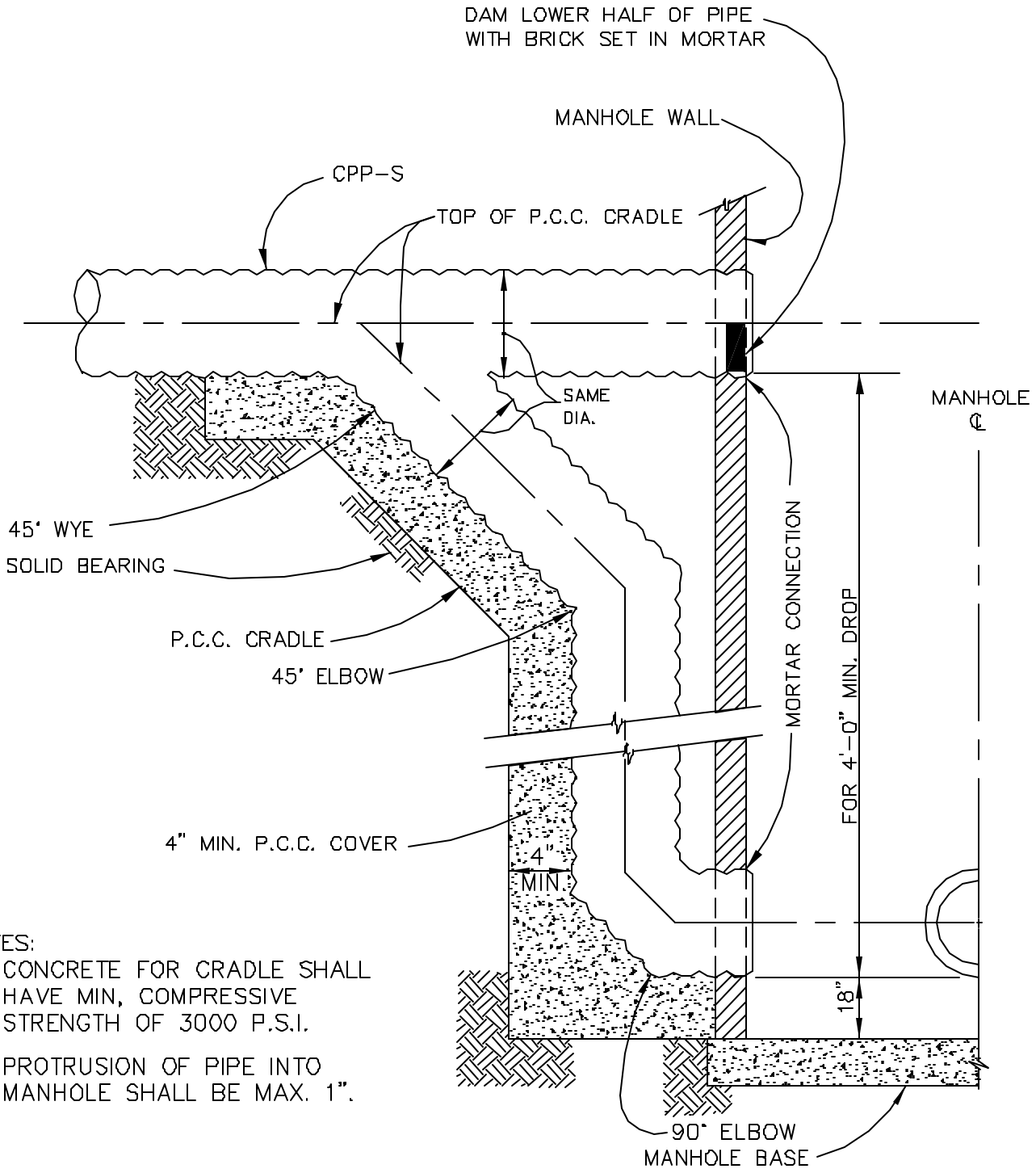
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	PRECAST CONCRETE REDUCING SLAB (72" OR 48" TO 26")	SECTION # 55.04 DETAIL # 55-13



NOTES:

1. CONCRETE FOR CRADLE SHALL HAVE MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I.
2. PROTRUSION OF PIPE INTO M.H. SHALL BE MAX. 1".

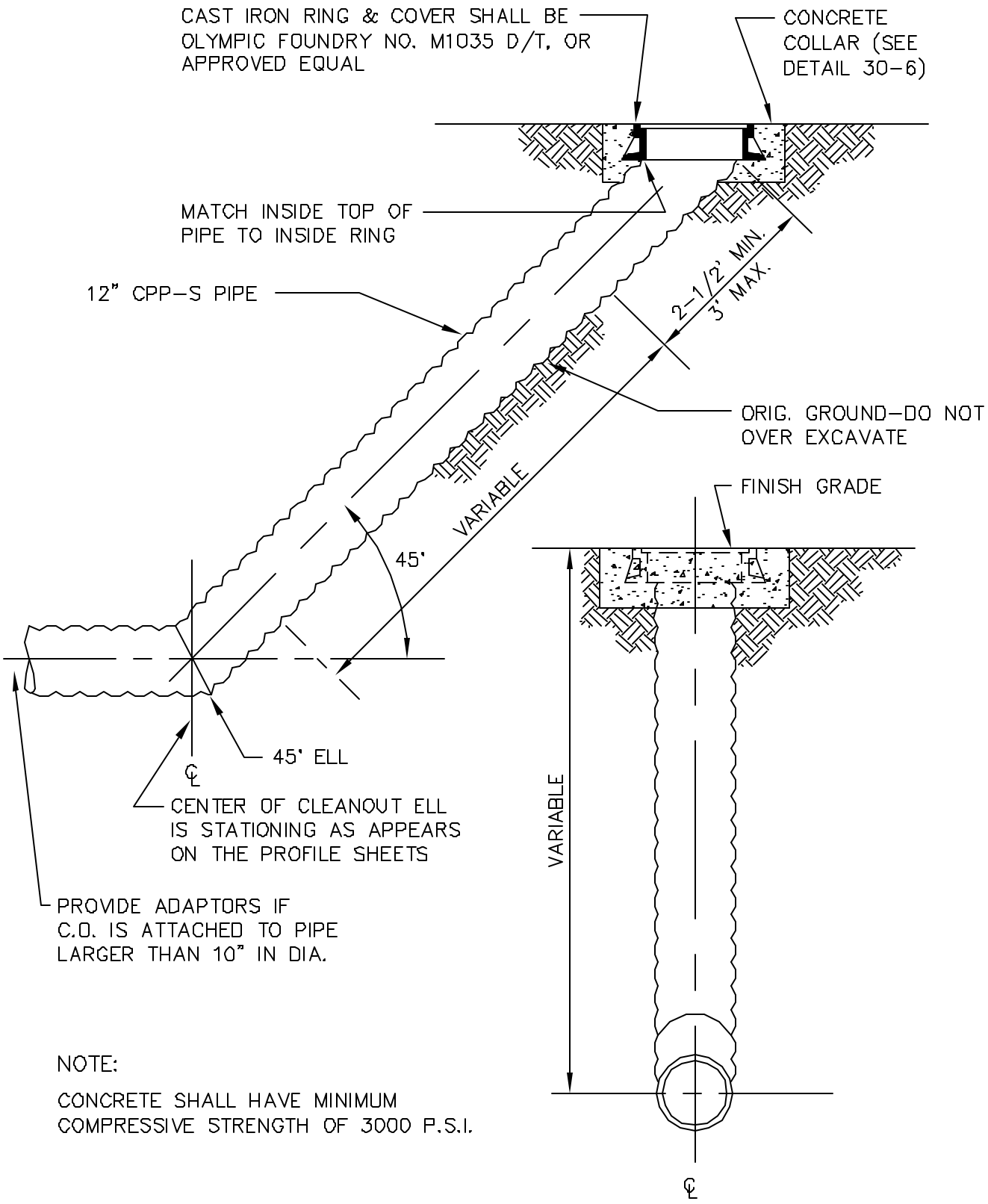
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	STORM DRAIN DROP CONNECTION (2' MIN. DROP)	SECTION # 55.08 DETAIL # 55-14



NOTES:

1. CONCRETE FOR CRADLE SHALL HAVE MIN, COMPRESSIVE STRENGTH OF 3000 P.S.I.
2. PROTRUSION OF PIPE INTO MANHOLE SHALL BE MAX. 1".

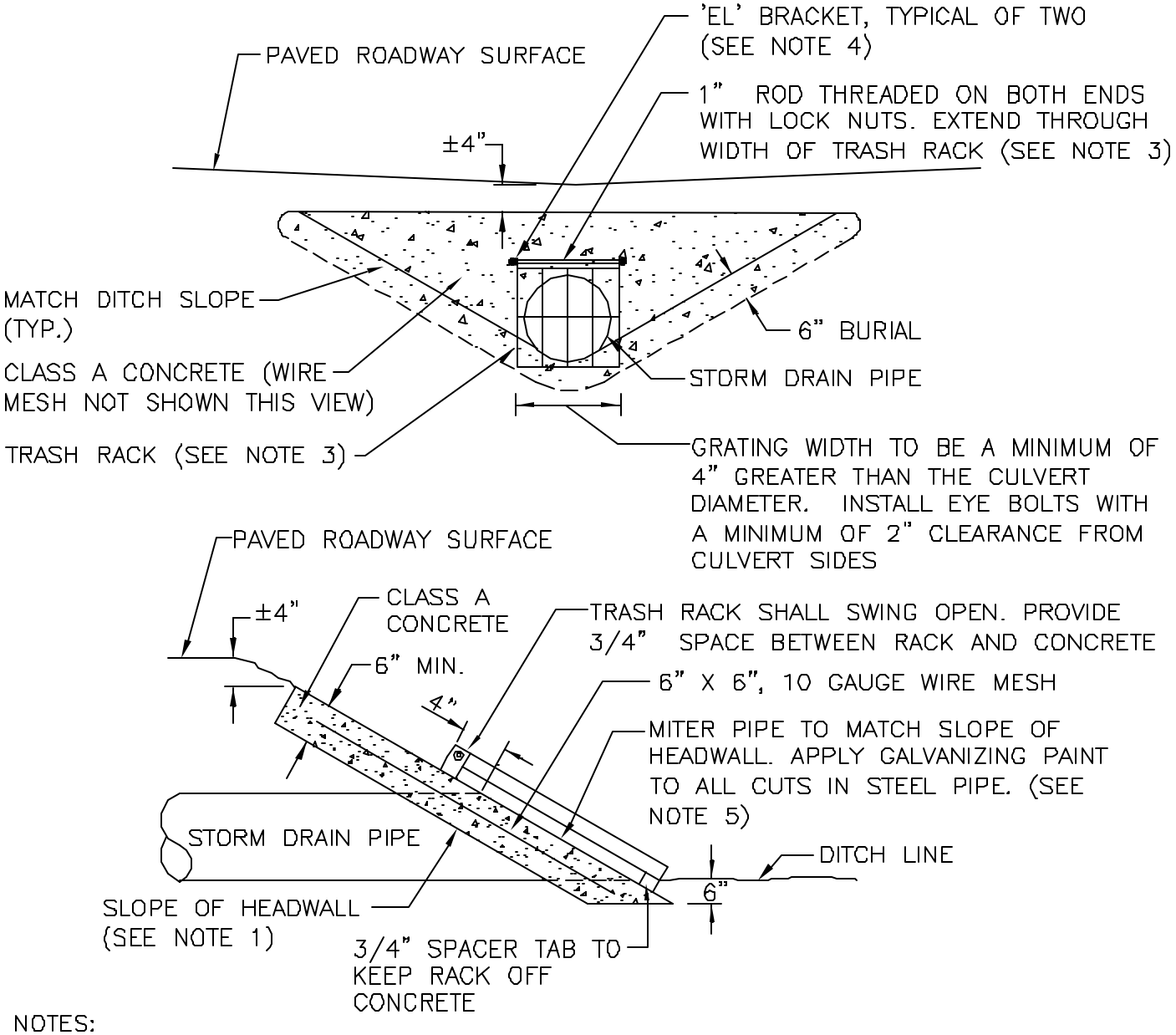
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	STORM DRAIN DROP CONNECTION (4' MIN. DROP)	SECTION # 55.08 DETAIL # 55-15



NOTE:

CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I.

CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	STORM DRAIN CLEANOUT	SECTION # 55.09 DETAIL # 55-16



NOTES:

1. SLOPE OF HEADWALL SHALL BE 2:1 OR FLATTER AND SHALL BE DETERMINED BY THE ENGINEER.

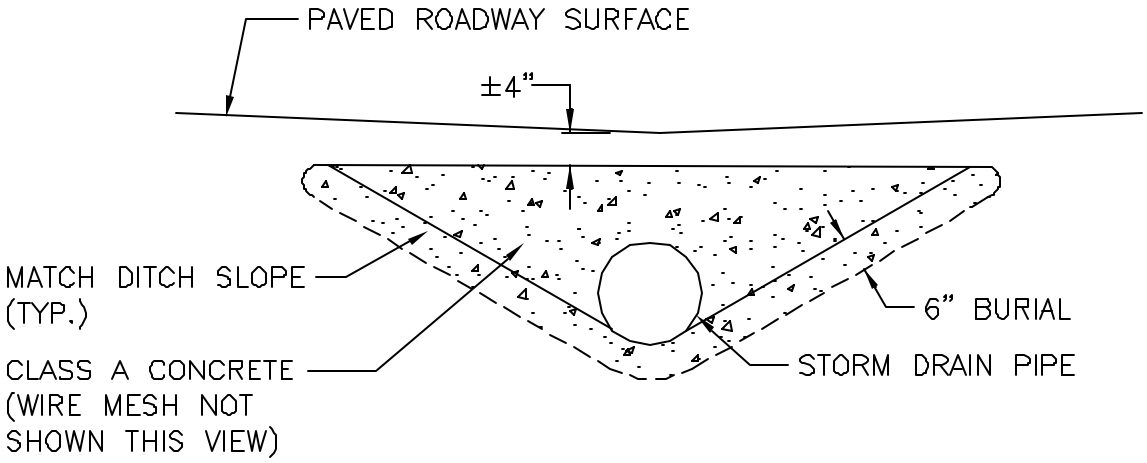
2. TRASH RACKS SHALL BE REQUIRED ON HEADWALLS AT UP STREAM ENDS OF CULVERTS ENTERING CLOSED STORM DRAIN SYSTEMS.

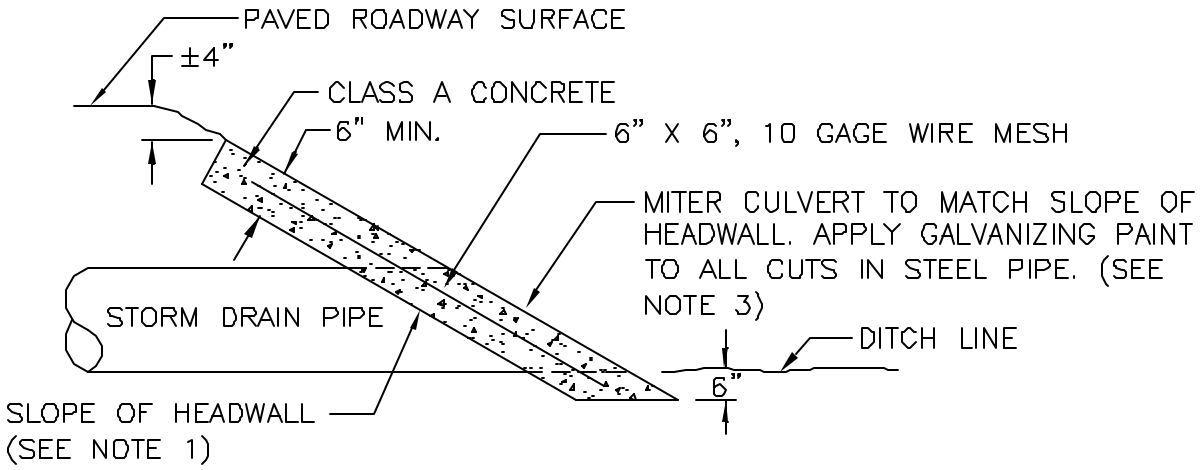
3. GRATE, 'EL' AND THREADED ROD SHALL BE CONSTRUCTED OF FLAT BARS OF EITHER 6061 ALUMINUM OR HOT DIPPED GALVANIZED STEEL.

4. INSTALL 'EL' BRACKETS A MINIMUM OF 2" INTO WET CONCRETE.

5. IF CORRUGATED PLASTIC PIPE IS USED, EMPTY WATER FROM CORRUGATIONS ON MITERED ENDS AND THEN COMPLETELY FILL VOIDS WITH CONCRETE GROUT.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# SLOPED CULVERT HEADWALL WITH HINGED TRASH RACK	SECTION # 55.10 DETAIL # 55-17





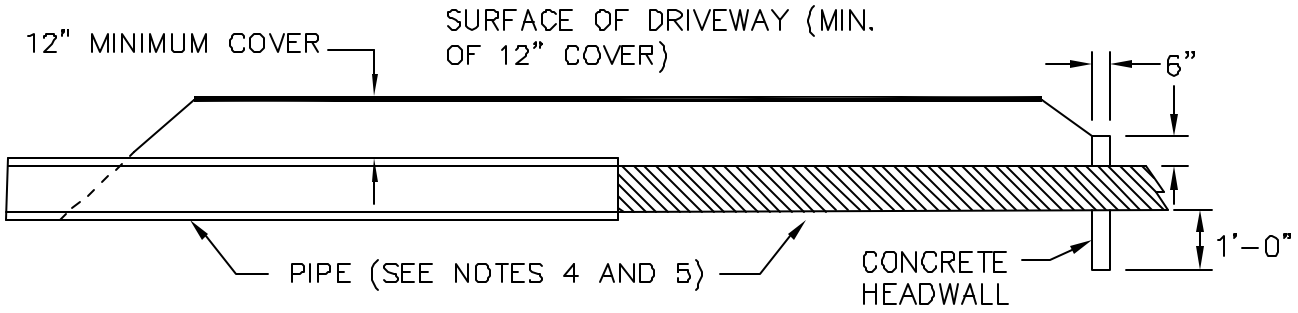
NOTES:

1. SLOPE OF HEADWALL SHALL BE 2:1 OR FLATTER AND SHALL BE DETERMINED BY THE ENGINEER.

2. TRASH RACKS SHALL BE REQUIRED ON HEADWALLS AT UP STREAM ENDS OF CULVERTS ENTERING CLOSED STORM DRAIN SYSTEMS.

3. IF CORRUGATED PLASTIC PIPE IS USED, EMPTY WATER FROM CORRUGATIONS ON MITERED ENDS AND THEN COMPLETELY FILL VOIDS WITH CONCRETE GROUT.

CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# SLOPED CULVERT HEADWALL	SECTION # 55-10 DETAIL # 55-18



CULVERT CROSS SECTION

NOTES:

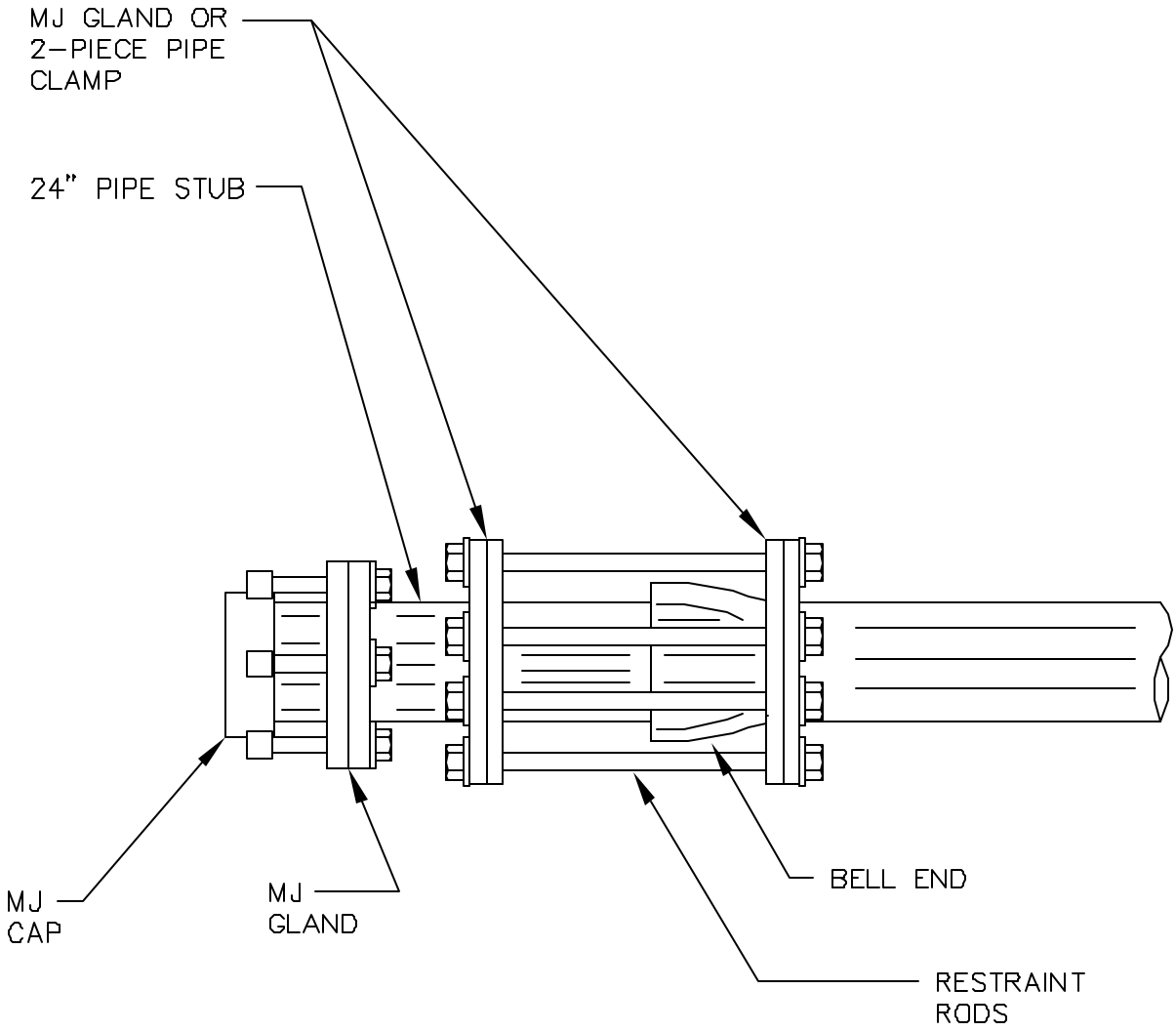
1. MINIMUM PIPE SIZE SHALL BE 12" IN DIAMETER AND 20 FEET IN LENGTH. PIPE SHALL EXTEND A MINIMUM OF ONE FOOT BEYOND THE TOE OF FILL.

2. PIPE SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS TO SUPPORT AASHTO H-20 LOADING

3. ACCEPTABLE PIPE MATERIAL - CORRUGATED POLYETHYLENE PIPE WITH SMOOTH INNER LINER (CPP-S).

4. PROVIDE 5'x5'x12" DEEP RIP-RAP AT PIPE OUTLET WHEN THE PIPE SLOPE IS GREATER THAN 5%.

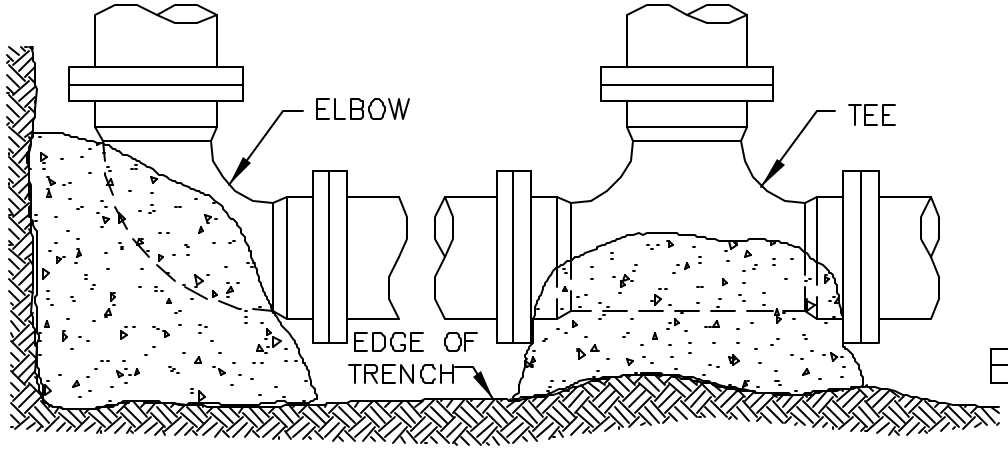
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL CULVERT INSTALLATION FOR CITY DRIVEWAYS	SECTION # 55.12 DETAIL # 55-19

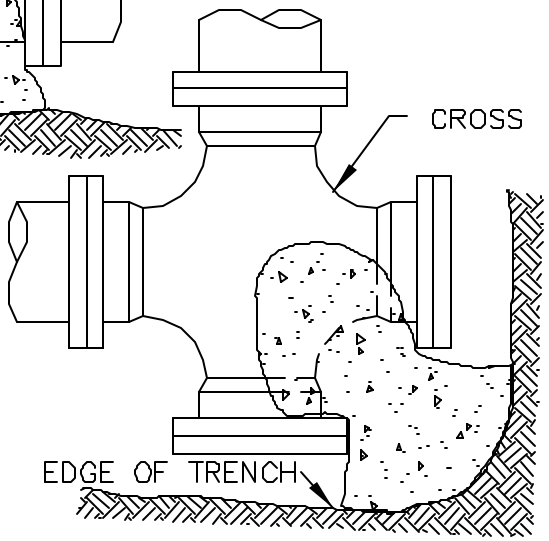


NOTES:

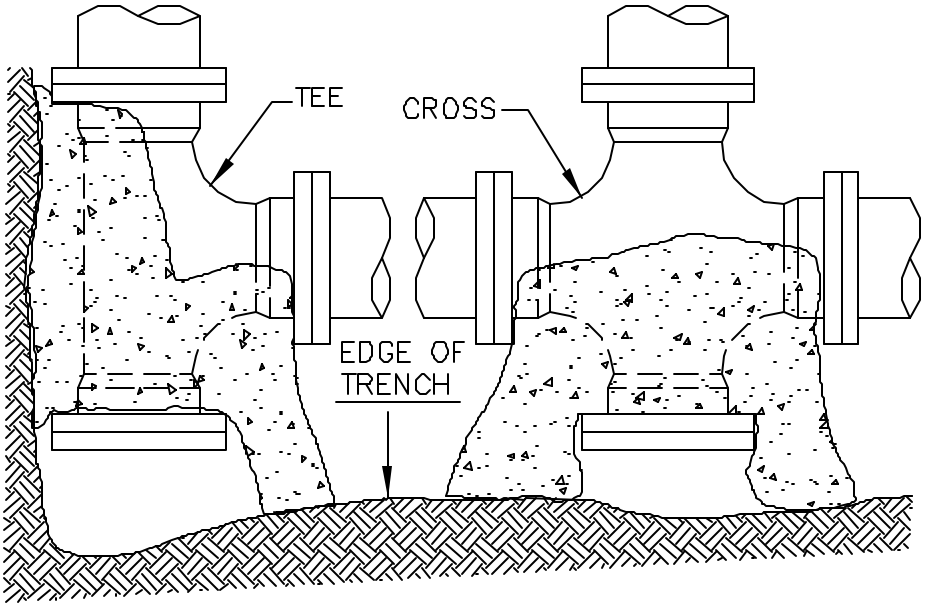
1. DIMENSIONS VARY WITH THE SIZE OF PIPE.
2. ON STRAIGHT PIPE ENDS, USE MECHANICAL JOINT DUCTILE IRON CAP.

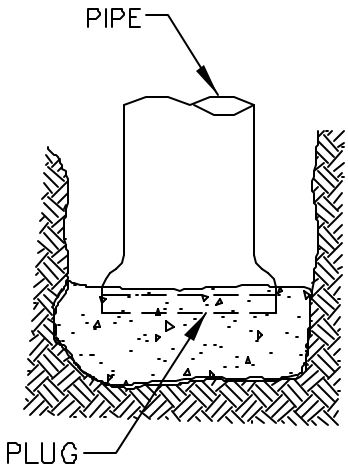
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	BELL AND SPIGOT PIPE CAP	SECTION # 60.02 DETAIL # 60-1





PIPE SIZE	MIN. BASE AREA SQ. FT.		
	90° BEND	45° BEND	PLUG
6"	2.0	1	2.0
8"	2.5	1.5	2.5
10"	4.5	2.5	4.5
12"	6	3.5	6
14"	8	4.5	8
16"	10.5	6	10.5
24"	24	13	24





NOTES

1. DO NOT EMBED PIPE CONNECTION JOINTS IN CONCRETE– LEAVE EXPOSED FOR FUTURE REPAIR
2. WRAP ALL CONCRETE–EMBEDDED PIPE SECTIONS WITH POLY

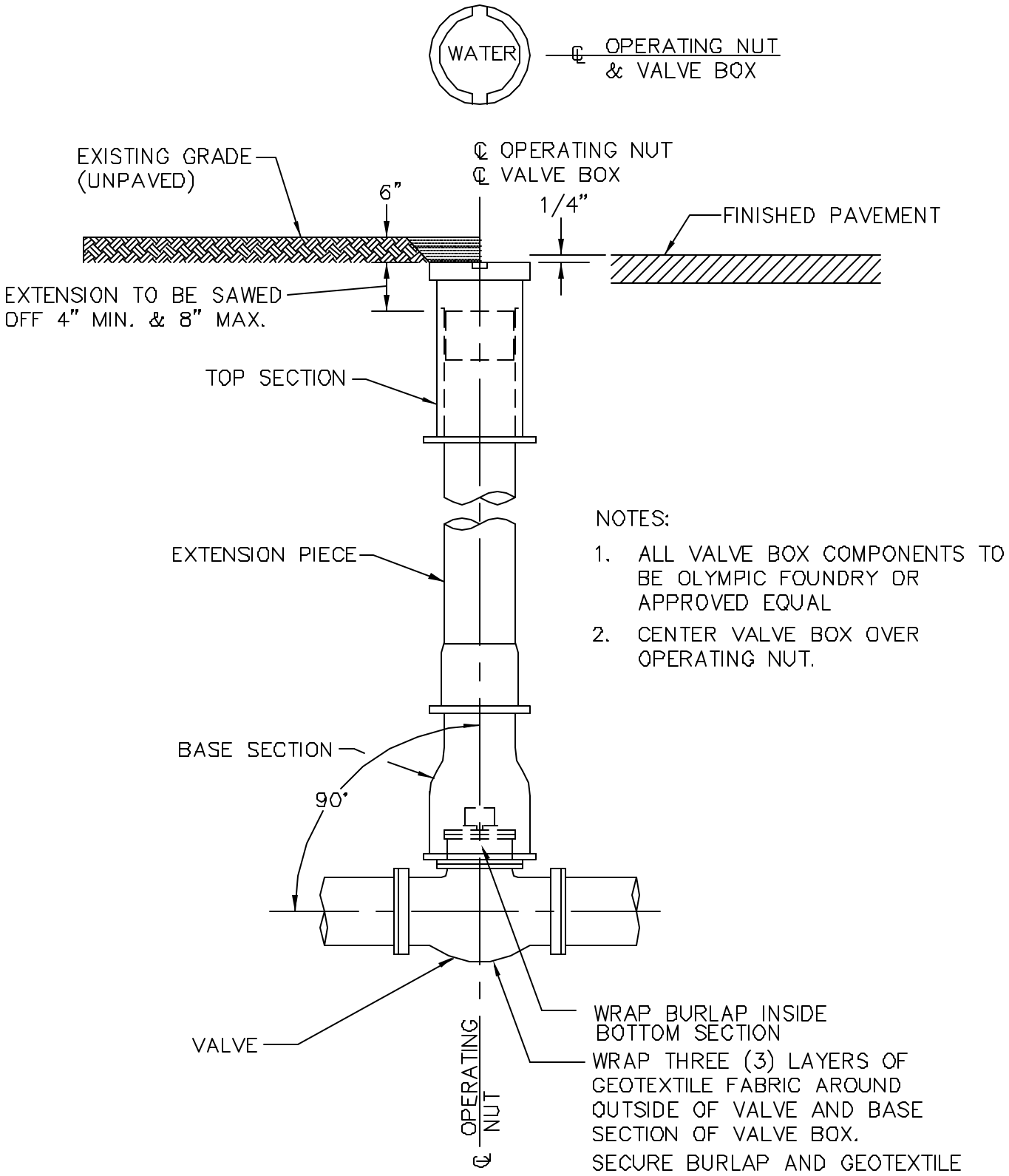
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

THRUST BLOCK

SECTION # 60.02

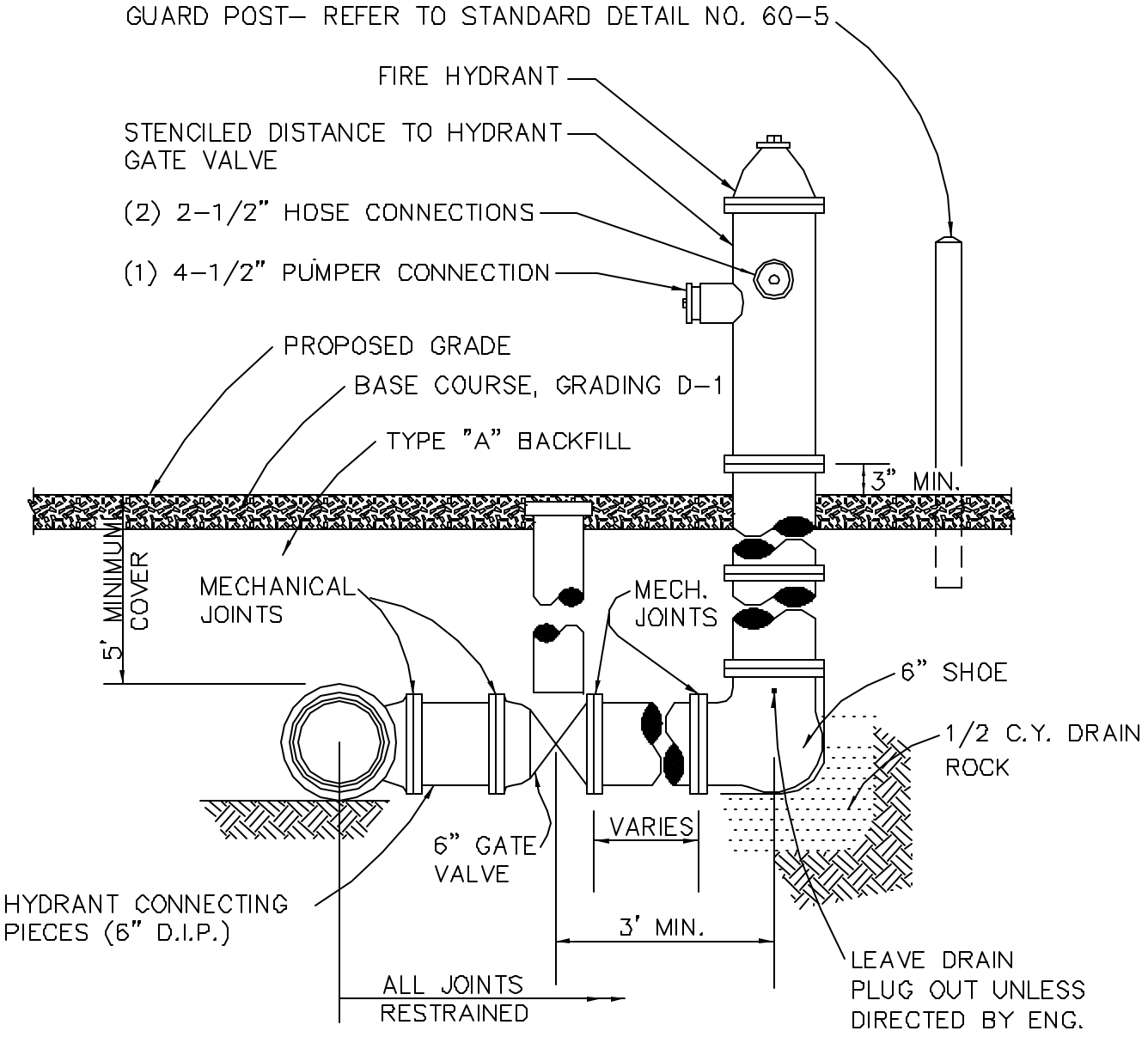
DETAIL # 60-2



NOTES:

1. ALL VALVE BOX COMPONENTS TO BE OLYMPIC FOUNDRY OR APPROVED EQUAL
2. CENTER VALVE BOX OVER OPERATING NUT.

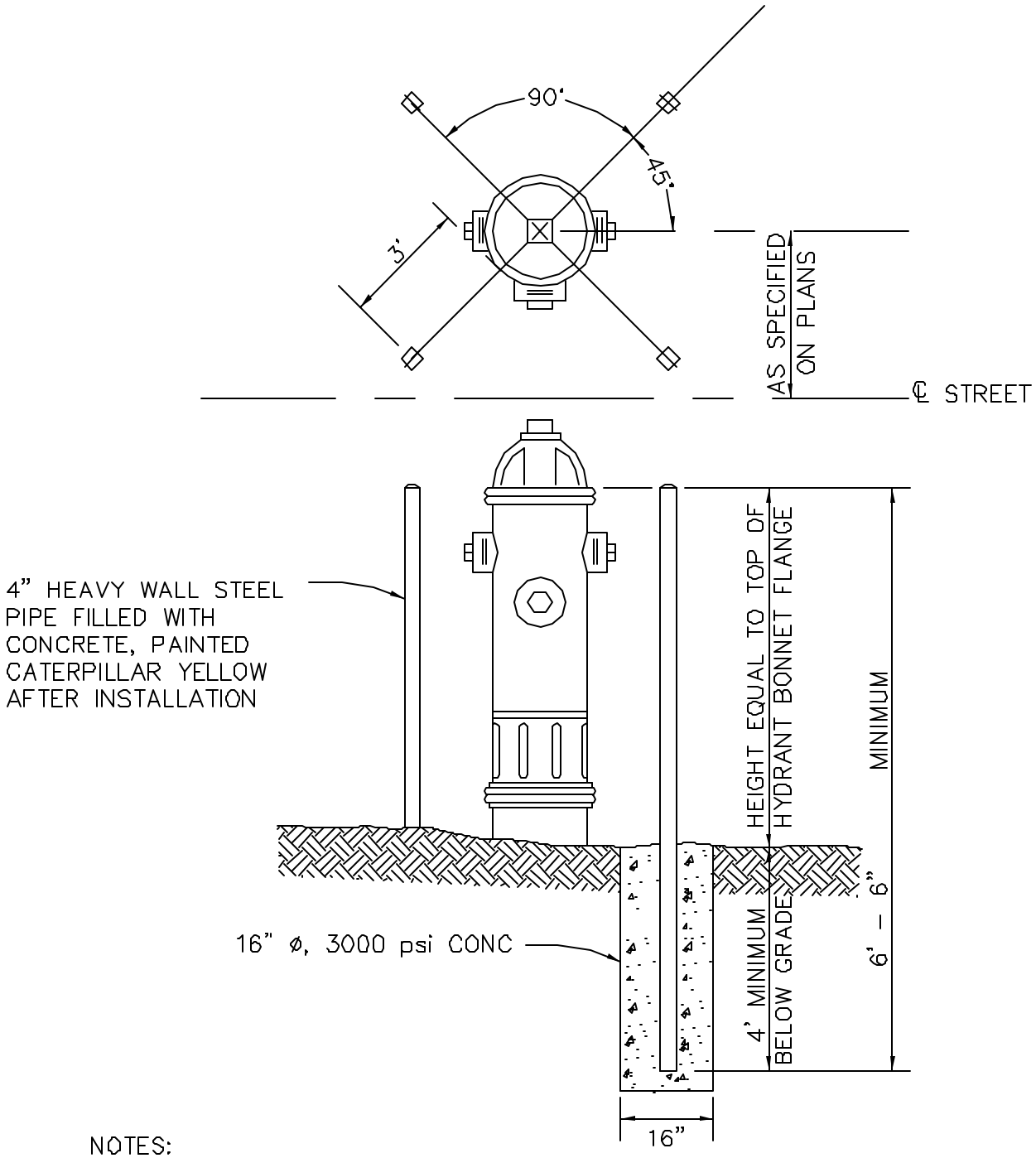
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# TYPICAL VALVE BOX	SECTION # 60.03 DETAIL # 60-3



HYDRANT INSTALLATION NOTES:

1. HYDRANT BARREL MUST BE INSTALLED PLUMB AND THE LEG MUST BE INSTALLED LEVEL.
2. DRAIN PLUG SHALL BE LEFT OUT UNLESS DIRECTED BY ENGINEER.
3. SEE PLANS FOR LOCATION.
4. ALL HYDRANTS SHALL BE PAINTED CATERPILLAR YELLOW AFTER INSTALLATION.
5. AUXILIARY GATE VALVE BOX TO BE INSTALLED ACCORDING TO DETAIL FOR TYPICAL VALVE BOX.
6. VALVES SHALL BE RESTRAINED TO THE MAIN LINE AND HYDRANTS SHALL BE RESTRAINED TO THE VALVE.

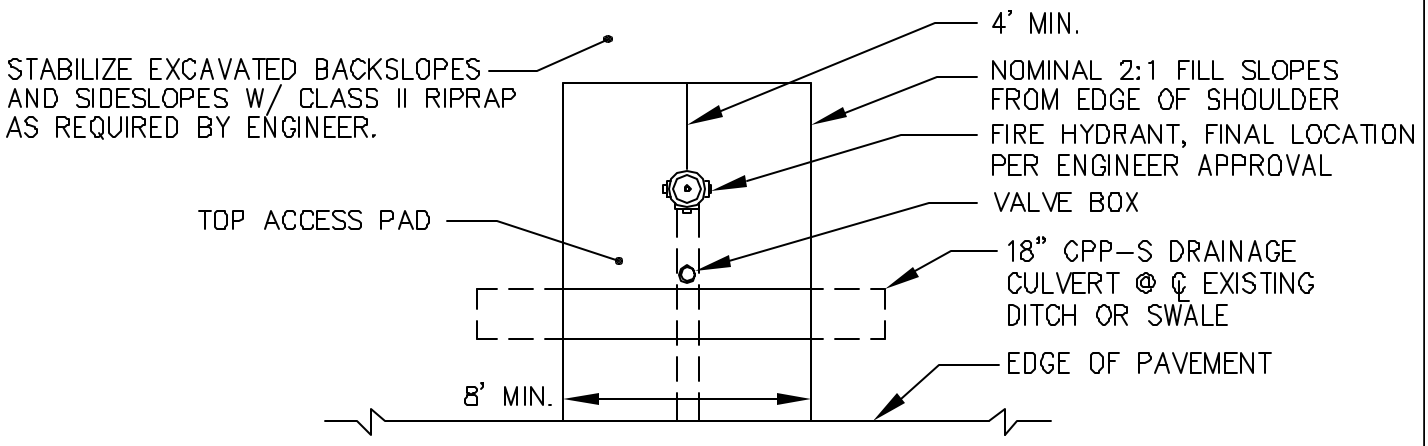
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# SINGLE PUMPER "L" BASE HYDRANT ASSEMBLY	SECTION # 60.04 DETAIL # 60–4



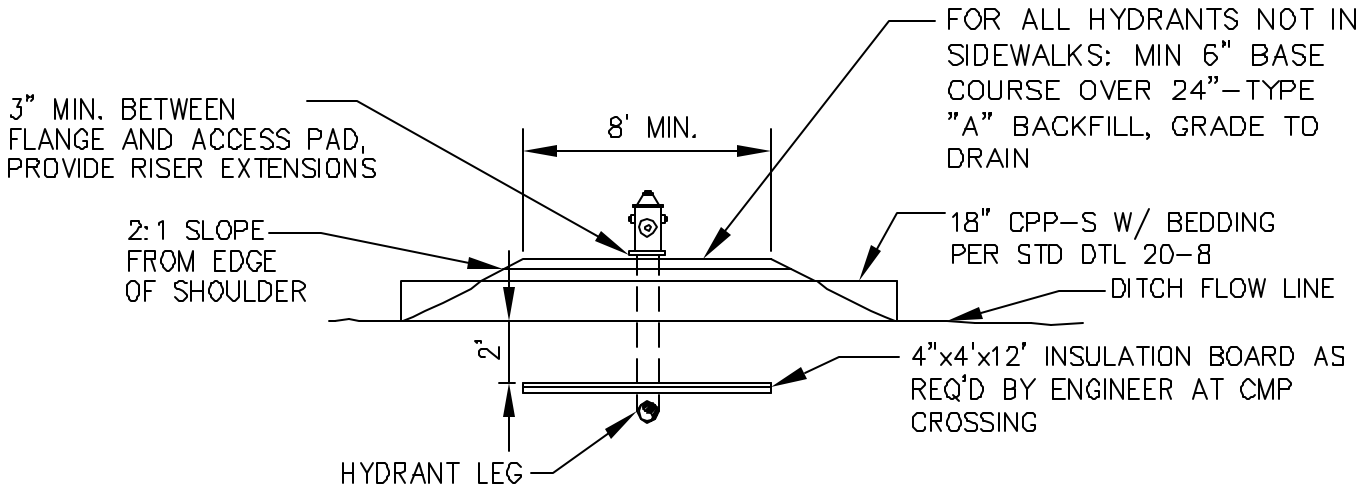
NOTES:

1. GUARD POSTS WILL BE FURNISHED & INSTALLED BY THE CONTRACTOR.
2. POSTS SHALL BE LOCATED TO ALLOW UNRESTRICTED ACCESS TO PUMPER AND HOSE CONNECTIONS.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	HYDRANT GUARD POSTS	SECTION # 60.04 DETAIL # 60-5



PLAN VIEW

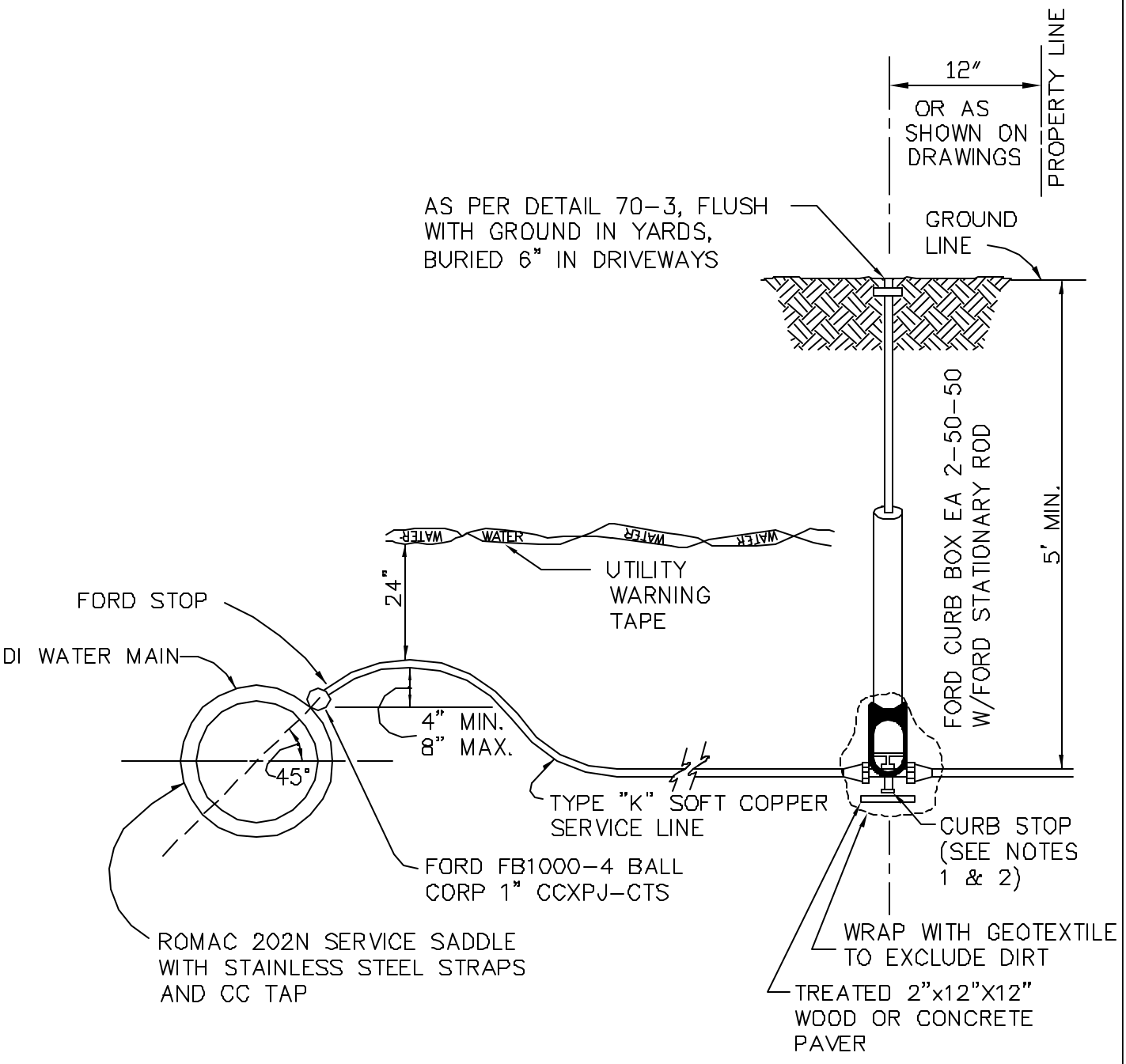


ELEVATION VIEW

NOTES:

1. SLOPE SURFACE OF HYDRANT PAD TO MATCH EXTENSION OF ROADWAY CROWN FROM EDGE OF ROAD TO DITCH LINE.

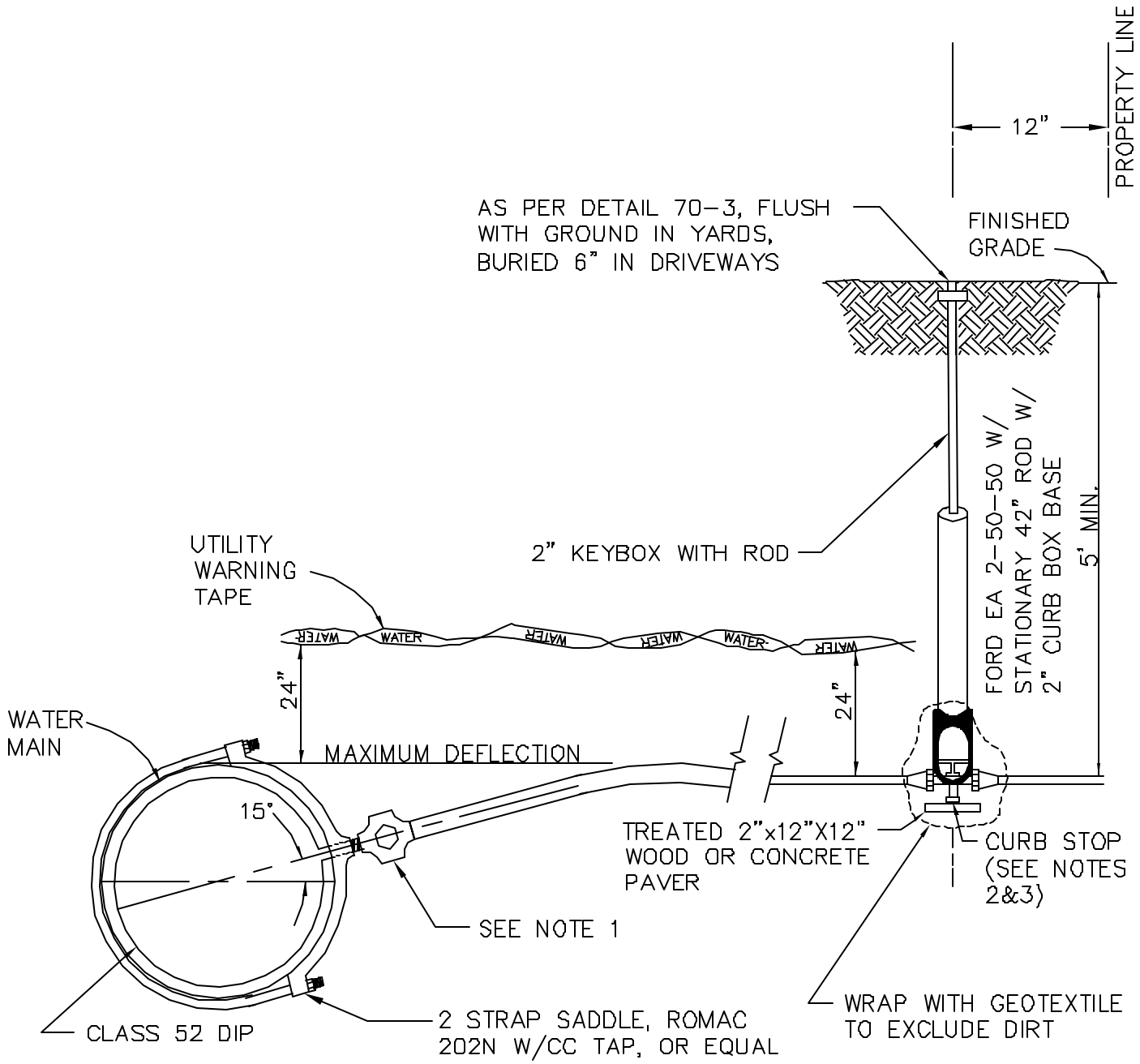
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	FIRE HYDRANT ACCESS PAD	SECTION # 60.04 DETAIL # 60-6



NOTES:

1. ROD TO BE ATTACHED TO CURB STOP WITH BRASS COTTER PIN-NO SUBSTITUTIONS.
2. USE FORD B41-444 BALL CURB STOP.
3. MUST USE PIPE ROUNDER IN PACK-JOINT AREA.

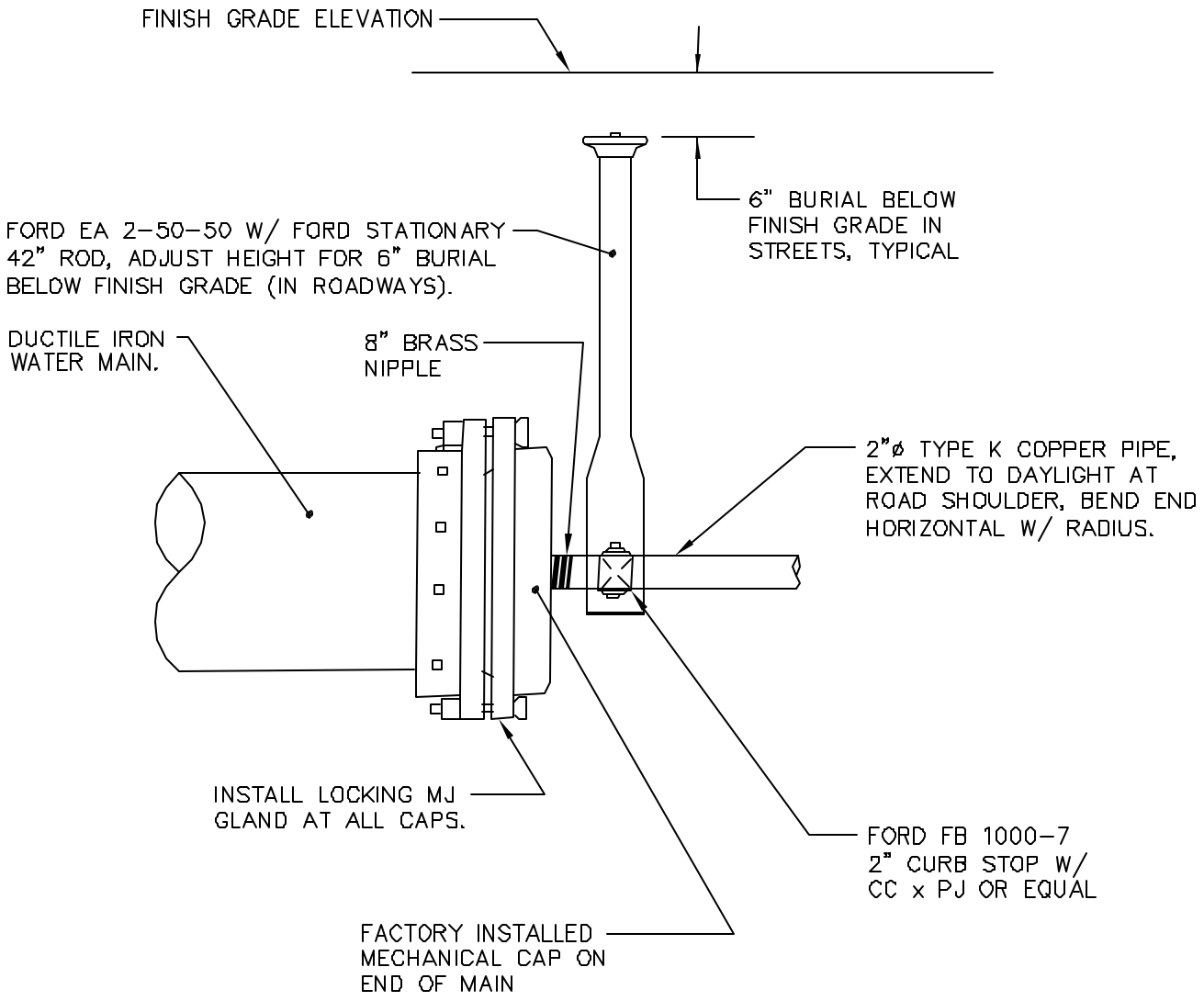
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	1" WATER SERVICE CONNECT TO DUCTILE IRON MAIN	SECTION # 60.06 DETAIL # 60-7



NOTES:

1. USE FORD FB1000-7 2" W/CCXPJ OR EQUAL.
2. ROD TO BE ATTACHED TO CURB STOP WITH BRASS COTTER PIN -NO SUBSTITUTIONS.
3. USE FORD B41-777 2" OR EQUAL.
4. 2" FROM MAIN TO PROPERTY LINE- THEN REDUCE TO 1 1/2" IF 1 1/2" SERVICE IS REQUIRED.
5. MUST USE PIPE ROUNDER IN PACK-JOINT AREAS.

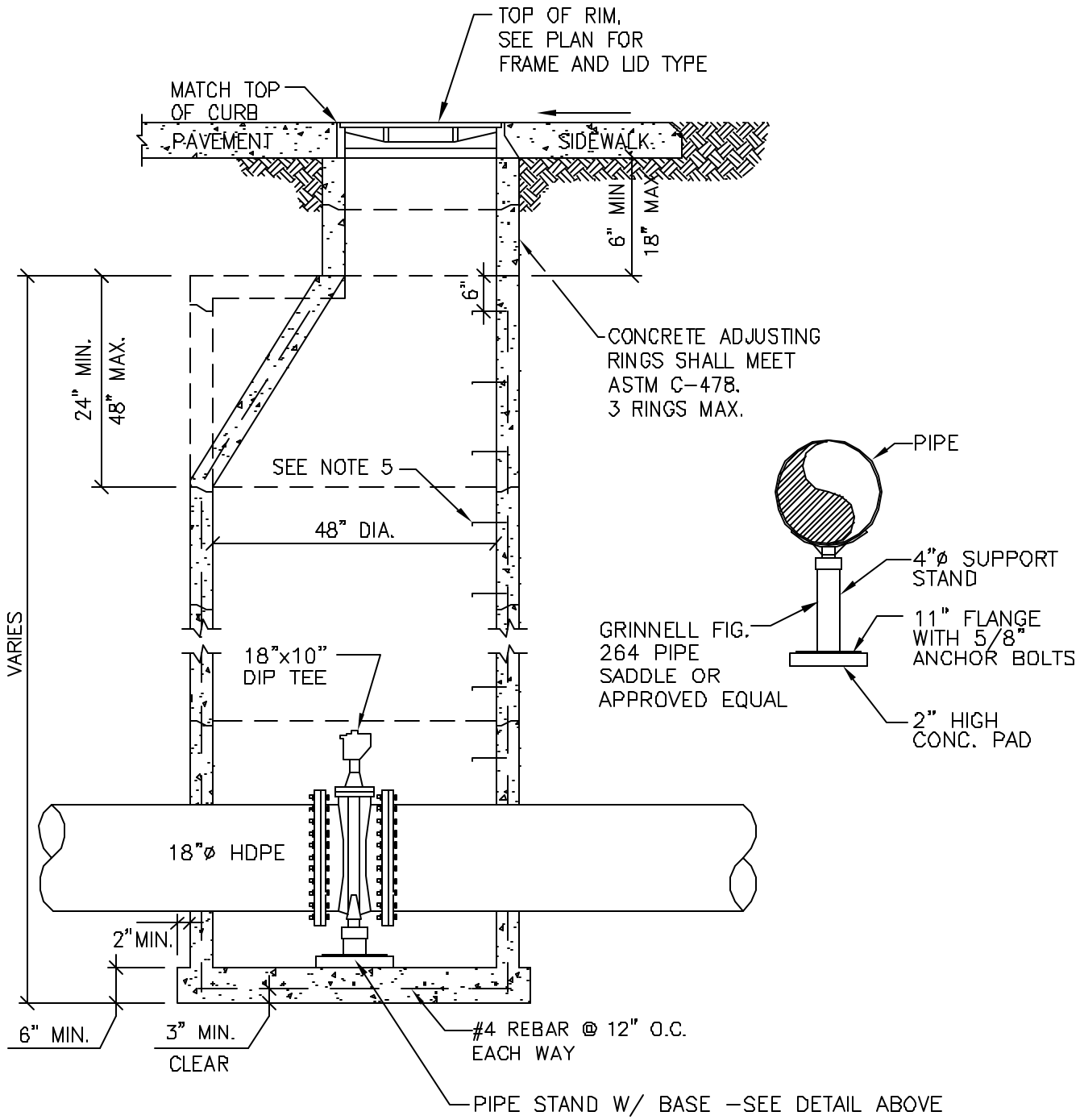
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	WATER SERVICE CONNECT 2"	SECTION # 60.06 DETAIL # 60-8



NOTE:

1. ENGINEER APPROVAL REQUIRED BEFORE UTILIZING WATER MAIN BLOWOFF.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	WATER MAIN BLOWOFF	SECTION # MISC. DETAIL # 60-9

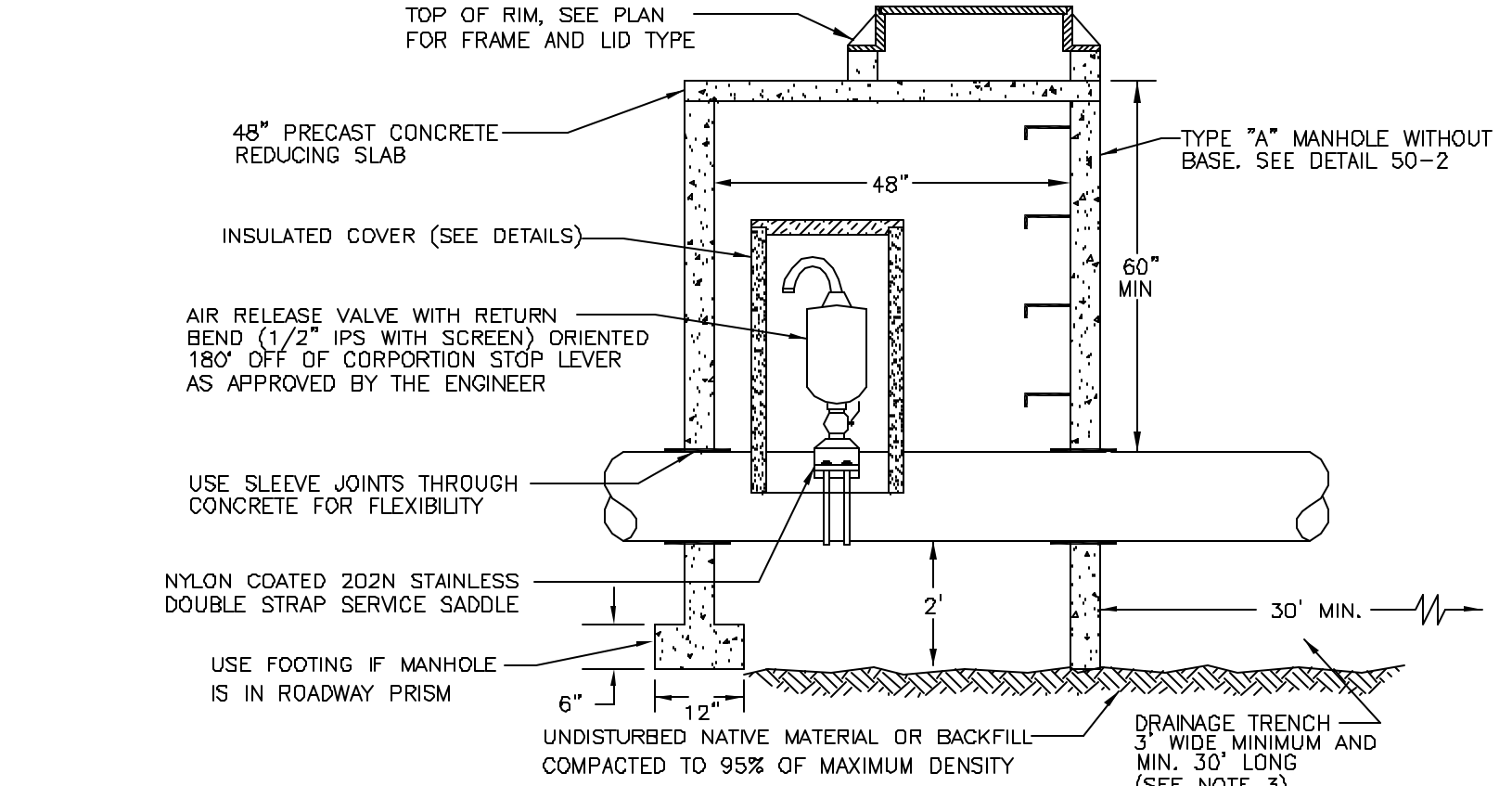


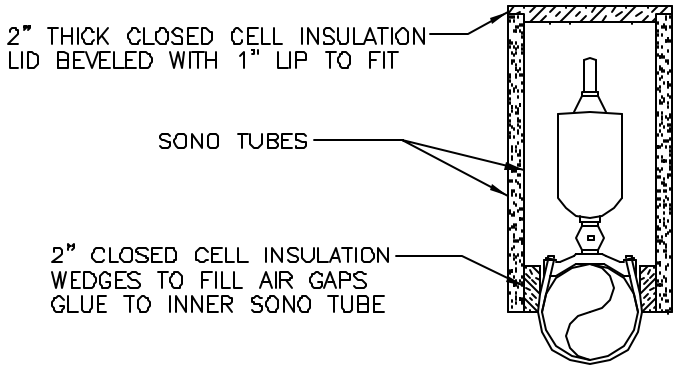
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	AIR RELEASE VALVE -CONC	SECTION # MISC. DETAIL # 60-10

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

AIR RELEASE VALVE

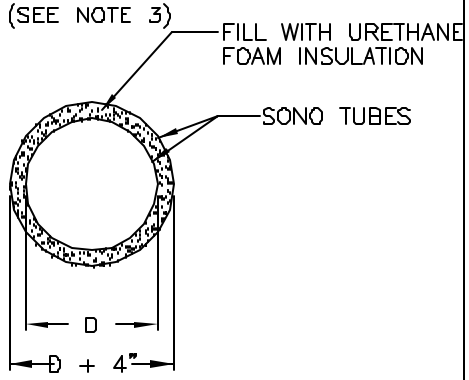
SECTION# MISC.
DETAIL # 60-11





SIDE VIEW

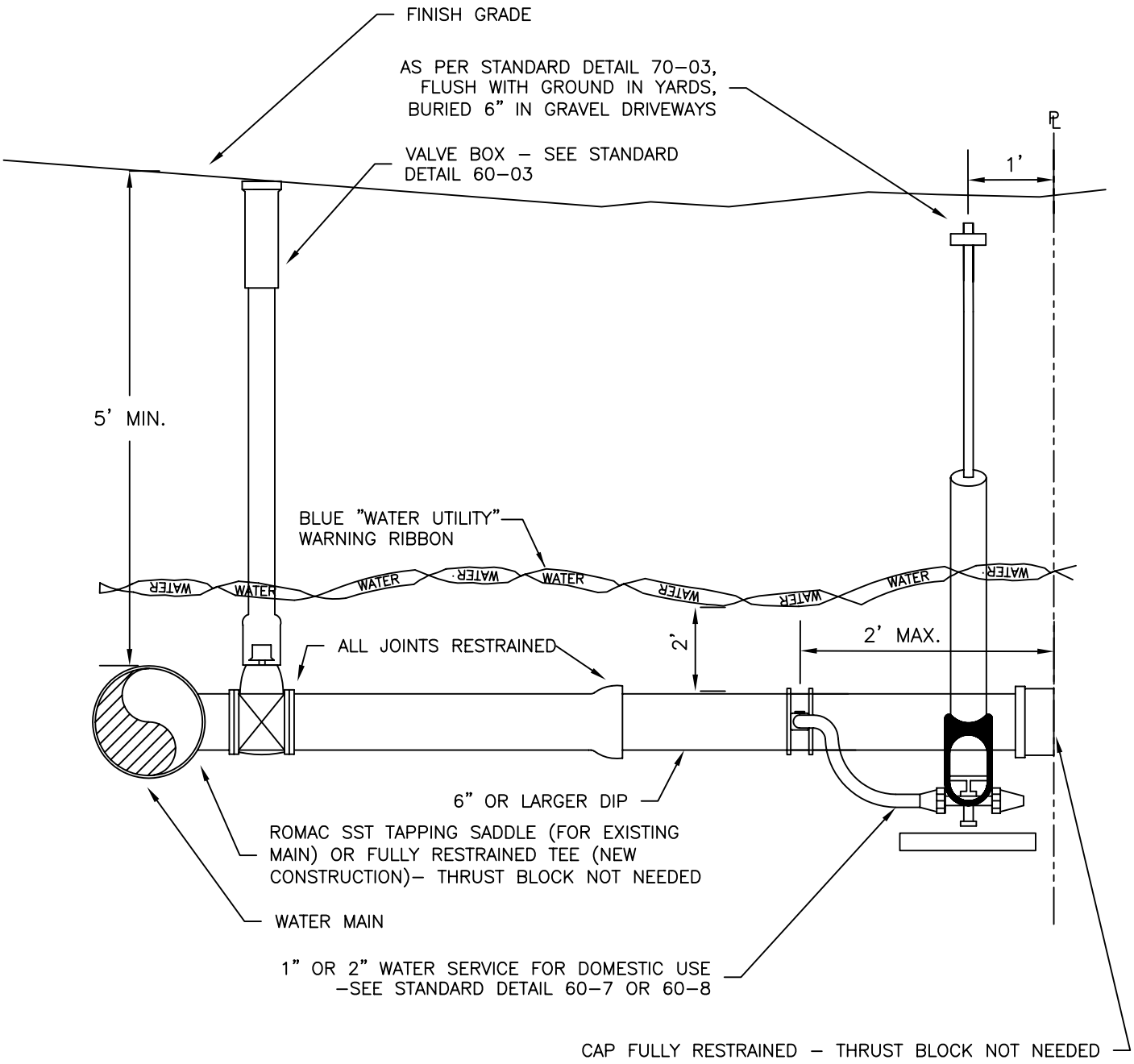
INSULATED COVER DETAILS



TOP VIEW

NOTES:
1. PVC DRAIN TO DAYLIGHT MAY BE SUBSTITUTED FOR DRAINAGE TRENCH IF APPROVED BY ENGINEER.
2. SONO TUBES SHALL BE CONCENTRIC TO INSURE A MINIMUM OF 2" OF INSULATION AT ALL POINTS. TRIM TUBES AND INSULATION TO FIT CURVATURE OF PIPE.
3. FILL DRAIN TRENCH WITH MATERIAL AS DESCRIBED IN TABLE:

SEIVE SIZE	% PASSING
.2"	100
.4"	0-10
1"	0-3



NOTES:
1. GROUND COVER SHALL BE 5' MINIMUM INCLUDING UNDER DITCHES.
2. WATER PIPE SHALL BE 6" MINIMUM D.I.P.
3. ALL CONNECTIONS SHALL BE FULLY RESTRAINED (TYPICALLY MEGALUGED OR CONNECTED WITH FIELD–LOCK GASKETS OR ROMAC GRIP RING).
4. HORIZONTAL DISTANCE BETWEEN CURB STOP AND CAP SHALL BE 4' MAXIMUM.
5. SWING–TIES TO CAP ARE NOT NEEDED IF THE RELATIONSHIP BETWEEN THE CAP AND THE CURBSTOP IS GIVEN AND SWING–TIES TO CURB STOP ARE PROVIDED.
6. COMMERCIAL SERVICES SHALL BE TESTED TO FIRELINE STANDARDS. SEE NFPA 24 CHAPTER 9.

CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE: NTS
APPROVED: DGJ
REVISED: 1/12/04

COMMERCIAL FIRELINE AND DOMESTIC SERVICE

SECTION# 60-TBA

DETAIL # 60-12

2148 01

INDEX

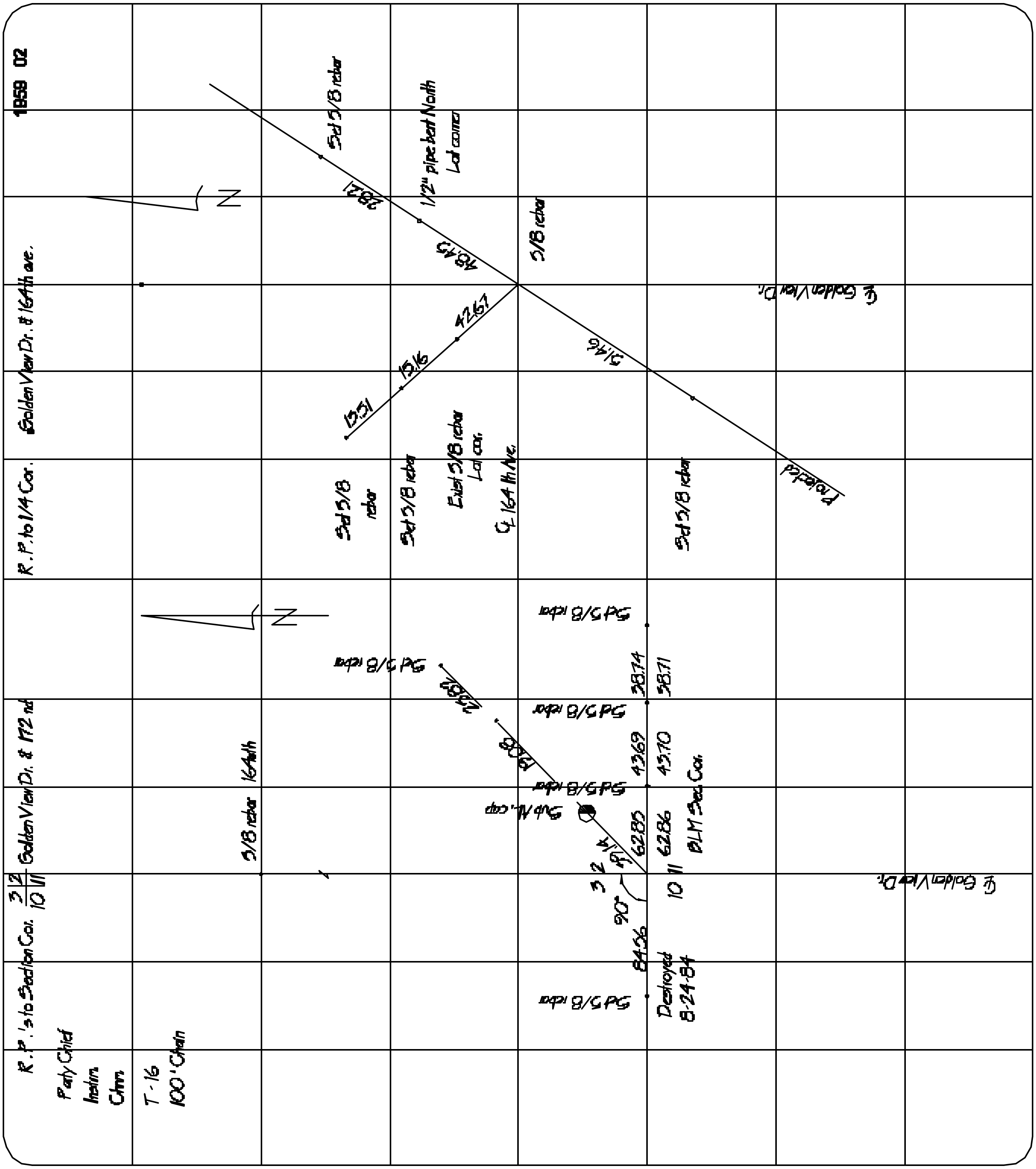
Page	Location	Date	Description
2	Third Ave.	9-8-86	Begin retracement & establishment of "P-line"
3-6	Third Ave.	9-9-86	Complete "P-line" & determine falling at Reeve Blvd.
7-12	Third Ave.	9-11-86	Tie property corners from "P-line"
13-16	Third Ave.	9-13-86	Establish C.L. Construction from "P-line"
17	Third Ave.	9-15-86	" " " " "
18-20	" "	9-17-86	Slope stakes S. E. cor. Third & Post
21-23	" "	9-20-86	R.P. 20+00 ℄ Nelchina, 26+50 & 31+03.35
24-27	" "	9-24-86	R.P.'s to ℄ & S.I.'s
28-40	" "	10-4, 10-5-86	Luminaires
41	" "	10-7-86	R.P. ℄ S.I. 3rd & Post
42	" "	10-8-86	Stake Load Ctr.
43-50	" "	10-9-86	Curb & Gutter staking
51-53	" "	10-10-86	Stake Load Ctr. & Luminaires
54-55	" "	10-18-86	J-Boxes, Post & Third, Concrete St. & Third grades
56	" "	10-24-86	P.P. Elev's
57	" "	11-7-86	Storm drain M.H.
58-70	" "	7-25-87	Before & after Ex X-S
71	" "	7-29-87	As Built curb
72-73	" "	7-31-87	Curb & gutter Rt. side 17+18 to Nelchina
74-75	" "	8-3-87	Restake C & G on Nelchina St.
76-77	" "	8-3-87	Curb & gutter 3rd. Ave.
78-79	" "	8-3-87	Curb & gutter Post Rd.

CITY AND BOROUGH OF SITKA

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

FIELD BOOK INDEX

SECTION # 65.02
DETAIL # 65-1



CITY AND BOROUGH OF SITKA, DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CONTROL REFERENCE POINTS	SECTION # 65.02 DETAIL # 65-2

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	MONUMENT RECOVERY AND HORIZONTAL CONTROL	SECTION # 65.02 DETAIL # 65-3

TBM LOOP FOR 100th AVE. TOPO
Note: We peg our level immediately before beginning this loop, check ±0.005 in 400'
Wild NA 2 #502261

1/26/87

1965 66
Clear 20°F
Party Chief
Instr.
Rodm.

Sta	+	HI	-	ELEV.	TBM		DESCRIPTION
	0.30	27 68					
TP			12.30	27 58			
	3.21	39 68					
TP			7.51	36 47			
	1.43	43 98					
TP			14.47	42 55			
	1.74	57 02					
TP			6.68	55 28			
	5.51	61 96					
TP			9.95	56 45			
	4.20	66.40					
GMB 39			4.15	62 22	62.20	Fnd. BC Mon	A&W Root Beer Bldg.
	7.11	66 37					
TP			2.49	59 26			
	3.79	61 75					
TP			9.04	57 96			
	0.02	67 00					
TP			10.54	66 98			
	0.23	77 32					
TP			5.81	77 09			
	6.50	82 90					
TP			5.48	76 40			
	5.03	81 88					
TNH 15					76.85	Fnd. BC	Dimond H.S. as per MOA BM Book Pg. 213

CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

VERTICAL CONTROL

SECTION # 65.02
DETAIL # 65-4

UNIVERSITY DRIVE
STAKE EXCAVATION LIMITS

EXCAVATION LIMITS (FROM L) C

Station	LT.	RT.	Station	LT.	RT.
34+78 Begin Exc.	30 / 0	30 / 0	50+00	20 / 0	20 / 0
35+35	29 / 5	39 / 0	50+50	20 / 0	20 / 0
			51+00	20 / 0	20 / 0
36+00	29 / 1	34 / 8	51+50	20 / 0	20 / 0
36+50	28 / 7	27 / 0			
37+00	38 / 2	27 / 0	52+00	20 / 0	20 / 0
37+50	37 / 9	27 / 0	52+50	20 / 0	20 / 0
38+00	27 / 5	27 / 0	52+70 End Exc.	20 / 0	20 / 0
38+50	27 / 9	-			
38+63.2	-	30 / 8			
39+00	27 / 0	-			
39+15.2	27 / 0	27 / 0			
40+00	27 / 0	27 / 0			
41+00	27 / 0	27 / 0			
41+50	27 / 0	27 / 0			
42+00	25 / 6	25 / 6			
43+00	22 / 8	22 / 8			
44+00	20 / 0	20 / 0			
45+00	20 / 0	20 / 0			
46+00	20 / 0	20 / 0			
47+00	20 / 0	20 / 0			
48+00	20 / 0	20 / 0			
49+00	20 / 0	20 / 0			

5/16/86
Sunny 60°F
Party Chief
Chainm.
RT Brien
100' Rag Tape

2098 08

CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

CLEARING LIMITS

SECTION# 65.02
DETAIL # 65-5

X-SECTIONS BEFORE EXCAVATION/GRADE STAKES
GOLDEN VIEW DR.

9-19-86 CLOUDY 58°
Party Chief
Chainman
Instrumentman

NI-2
Philly Rod
Rag Tape

1858 15

STA	+	HI	-	ELEV.							
26+00		PO 16 / 670 76 / 6 71	670 4 / 7 1	670 1 / 7 4	669 8 / 7 4; 670 9 / 6 6	671 3 / 6 2; 671 8 / 5 9	671 6 / 6 3	671 2 / 6 3	672 3 / 5 0	672 94 / 4 53	C-0 3 / 5 0 / C-2 1 / 1/21
℄ Sub. 610.92		30 C-1 0 / (1 2)	25	13	10; 6 ER	℄; 10	19 ER	24 TOE	26	30 3 6 / (2 2)	3 2 / C-0 6 2 / C-0 5 2 / 20
25+50	C-0 8 / 5 0 / C-2 2 / 1/21	C-0 93 / 674 18 / 3 29	673 3 / 4 0	673 3 / 4 0	672 9 / 4 6; 674 0 / 3 5	674 4 / 3 1; 675 0 / 3 5	674 8 / 2 7	674 9 / 2 6	676 1 / 1 4	C-3 83 / 677 06 / 0 41	C-1 3 / 5 0 / C-2 8 / 1/21
℄ Sub. 675.23	3 2 / C-0 7 3 / 6 3 / C-0 3 3 / 28	30 2 9 / (2 2)	26	17	10; 6 ER	℄; 11	19 ER	23	28	30 5 4 / (3 1)	4 2 / C-1 3 2 / 7 / C-1 2 2 / 21
TP	203	677.47 / 681.50	11.86	675.44							

SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

X-SECTIONS/ SLOPE STAKES

SECTION #
65.02

DETAIL #
65-6

CITY OF SITKA

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

GRADE STAKES/BLUE TOPS

SECTION# 65.02
DETAIL # 65-7

UNIVERSITY DRIVE
BLUE TOPS
TOP TYPE II

5/23/86
CLDY 50°

Party Chief
Chainman
Instrumentman

2150 42

STA.	+	HI	-	ELEV.	LT.	NI2 Philly Rod		RT.			
39+50						27 0	℄ Rd	5 19 142 21 27 0			
39+132						No B.TOP	℄ Rd	C-1 0 PG 5 66 142 64 27 0			
39+00						27 0	℄ Rd	No B.TOP			
38+50						27 2	℄ Rd	No B.TOP			
T.P.C WNW. 469 RT. 148.30 RT. 604 RT. 143.59 @ 38+00						14361 Elev. from Pg. 11.					
38+00						27 2	℄ Rd	No B.TOP C-0 4 PG			
37+50						27 2	℄ Rd	6 15 145 48 27 0			
		149.63 RT.									

CITY AND BOROUGH OF SITKA

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

DRAINAGE STRUCTURES

SECTION # 65.02
DETAIL # 65-8

CULVERT STAKES Eagle River Rd. 1998 71

Party Chief — 5-13-85 — 55° — Caldy
Instrm. — Wild NI II
Chrm. — 25' Glass Rod, 100' Chain

STA	+	HI	−	ELEV.
TBM		489.42	8.08	481.34

Rec. 481.35 — N. Rim MH at NW cor. E.R. Rd & Wildwood, Page 65

			8.0	481.4
			9.1	480.3
0+67 N 3 / 2+03 E 2			RP (10) 3 / 7.60	481.82
		489.42	RP (10) / 5.06	N. 484.36

Existing Ditch at outfall — Existing Ditch Bottom 4 — Inv. Grade 480.10

22 — C-1 — 26 — C-4

RP/Hub (10) — (10) RP/Hub

15" Culvert

CITY OF SITKA
DEPARTMENT OF PUBLIC WORKS

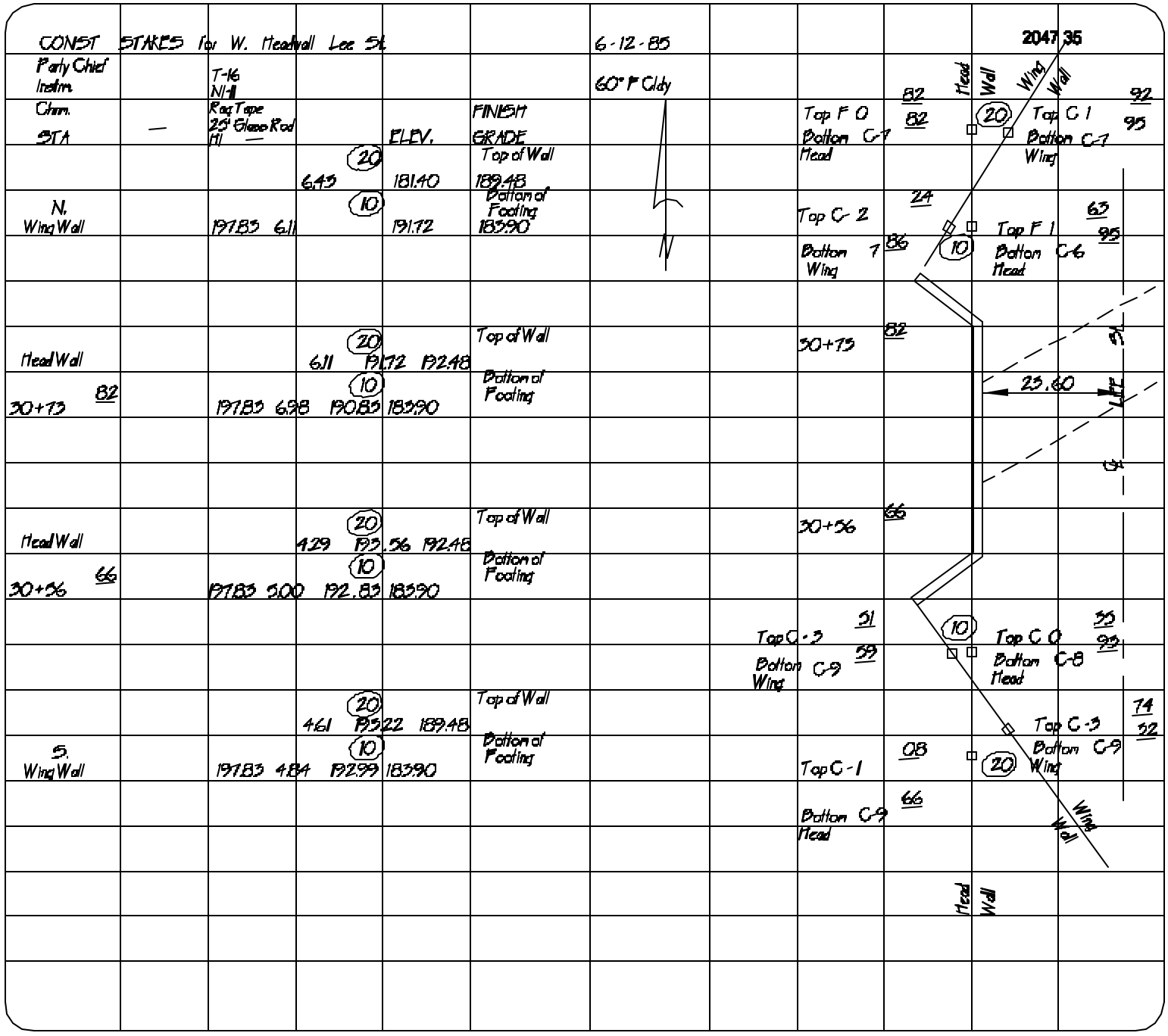
SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

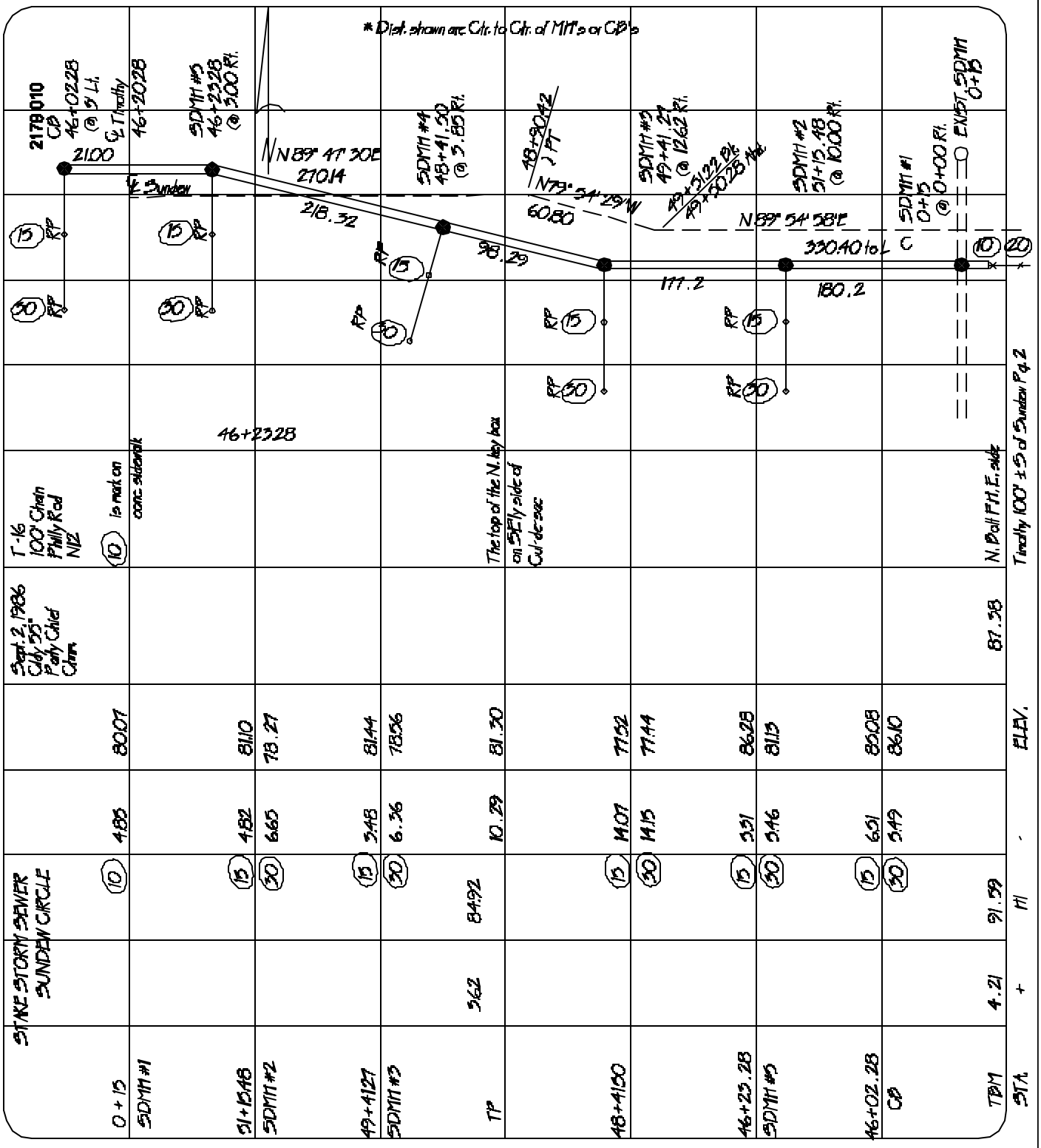
RETAINING WALL STRUCTURES

SECTION # 65.02
DETAIL # 65-9

CONST STAKES for W. Headwall Lee St. — 6-12-85

Party Chief Instrm.		T-16 N/A				60° F Cldy						
Chain. STA	—	Rod Tape 25' Glass Rod Ht —		ELEV.	FINISH GRADE							
			20 6.43	181.40	Top of Wall 189.48							
N. Wing Wall		197.83 6.11	10	191.72	Bottom of Footing 183.90							
Head Wall			20 6.11	191.72	192.48 Top of Wall							
30+13	82	197.83 6.98	10	190.85	183.90 Bottom of Footing							
Head Wall			20 4.29	193.56	192.48 Top of Wall							
30+56	66	197.83 5.00	10	192.83	183.90 Bottom of Footing							
			20 4.61	193.22	189.48 Top of Wall							
S. Wing Wall		197.83 4.84	10	192.99	183.90 Bottom of Footing							





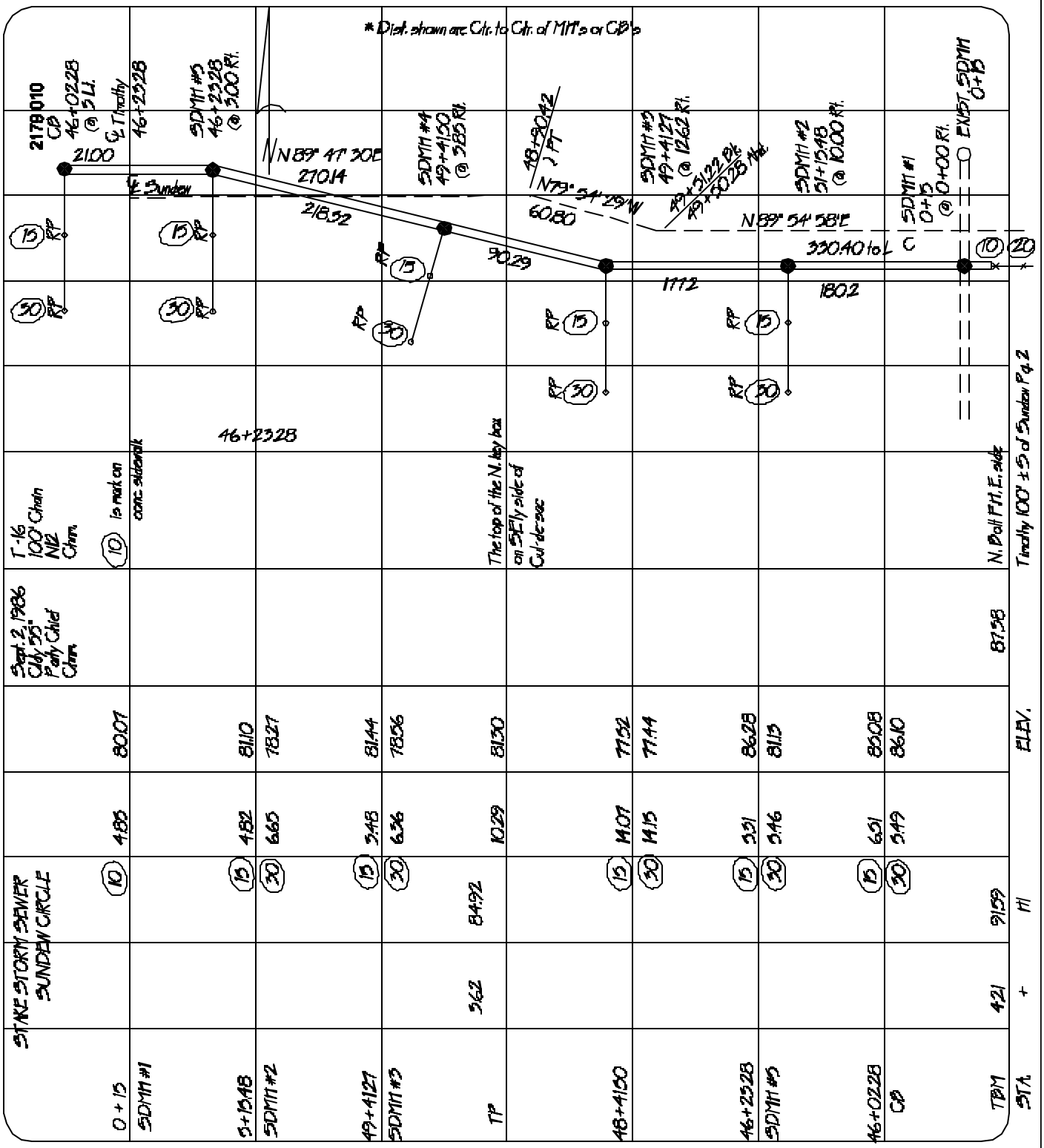
CITY AND BOROUGH OF SITKA — DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

STORM SEWER LAYOUT

SECTION # 65.02

DETAIL # 65-10



CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

DRAINAGE STAKES

SECTION #
65.02

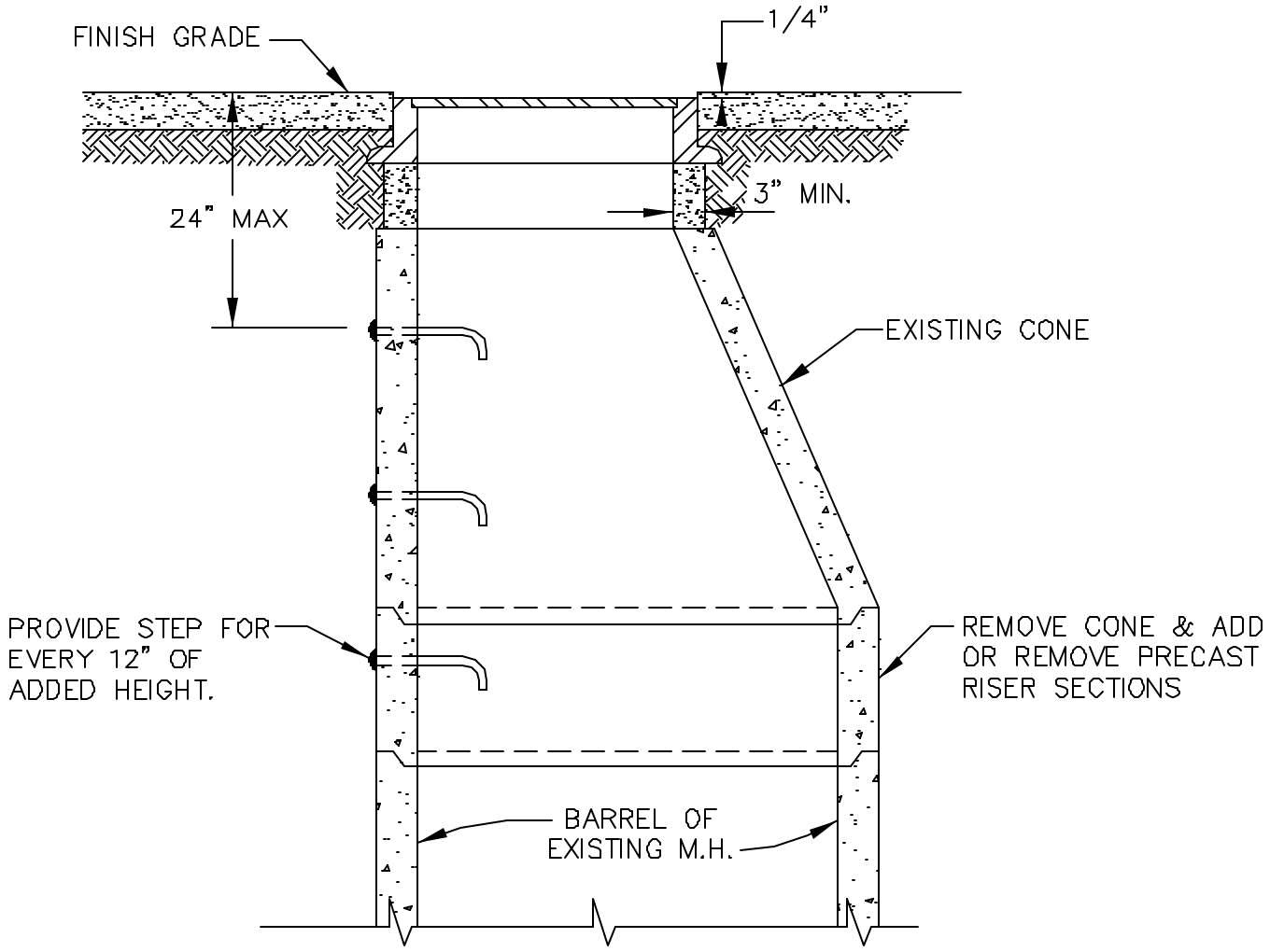
DETAIL #
65-11

		C & G STAKES SUNDEW CIRCLE			Party Chief Instrm. Chm. ℄		NI-II 25' Glass Rod 100' Rag Tape		2178 012		
			LEFT						RIGHT		
46+80			6.69	84.79	F-0 51				7.56	85.92	F-1 44
85.56 TC			18'						18'		
46+60 PUC			5.69	85.79	C-0.01				7.38	84.10	F-1.62
			18'						18'		
BEGIN C&G 46+56.78			5.77	85.71	F-0.06				7.26	84.72	F-1.55
85.77 TC			18'						18'		
	Note: Hub/Tack set 3' offset to TBC 01										
TBM STA.	+4.10 +	91.48 RT.	-	87.38 ELEV.	N. Bolt FH. E. Side Tinalty - 100' of Sundew Cir MOA FD 1985-4						

SCALE: NONE
APPROVED: RAR
REVISED: 11/29/02

CURB AND GUTTER STAKES

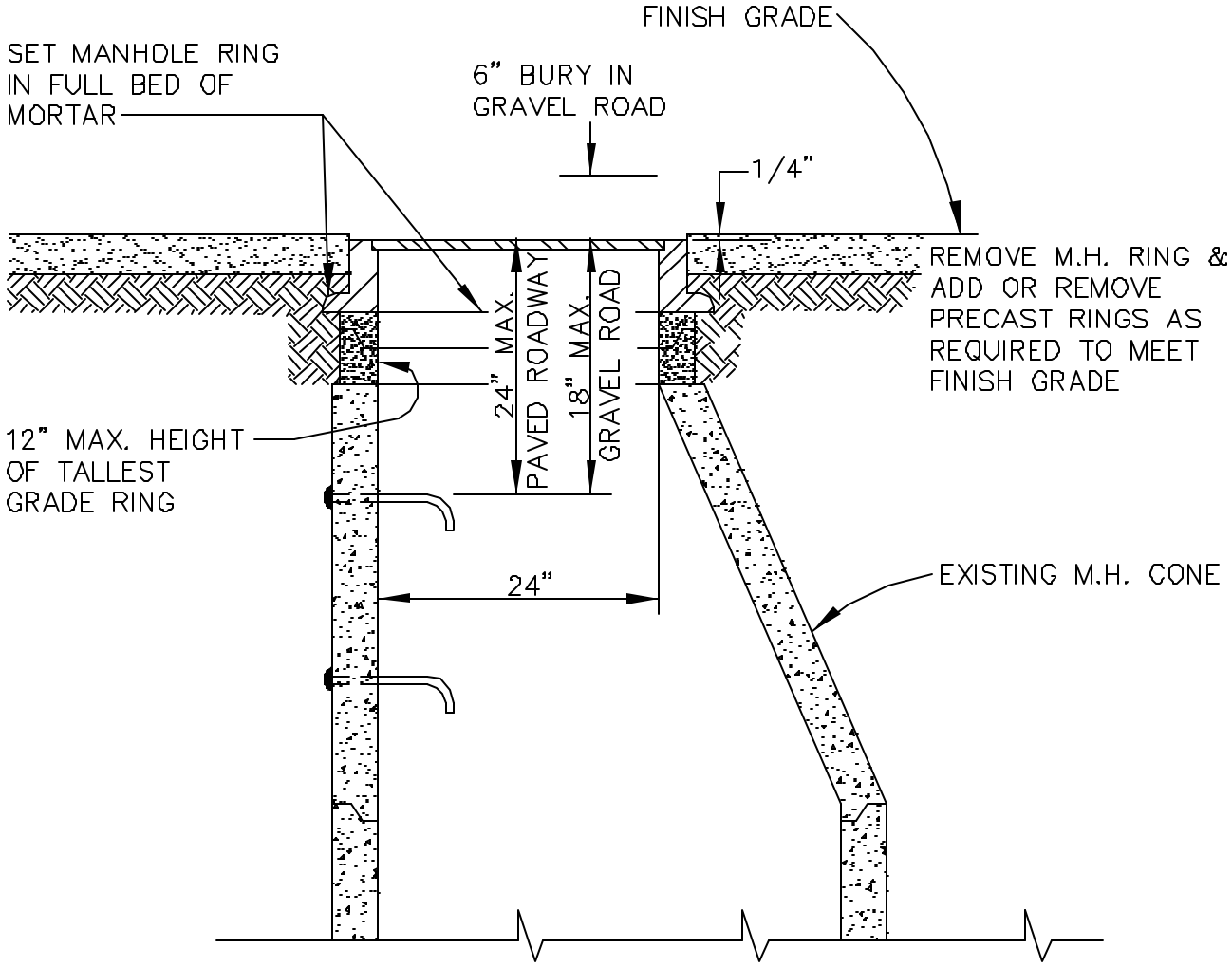
SECTION # 65.02
DETAIL # 65-12



NOTES:

1. ALL PERTINENT SECTIONS OF THE STANDARD SPECIFICATIONS WILL APPLY.
2. RESET RING IN FULL BED OF MORTAR.
3. REFER TO ASTM DESIGNATION C-478-69 FOR DESIGN AND STRENGTH REQUIREMENTS.
4. RESET CONE IN RAM-NEK OR EQUAL.
5. WRAP ALL JOINTS WITH ESKY WRAP OR MIRADRI, OR APPROVED EQUAL

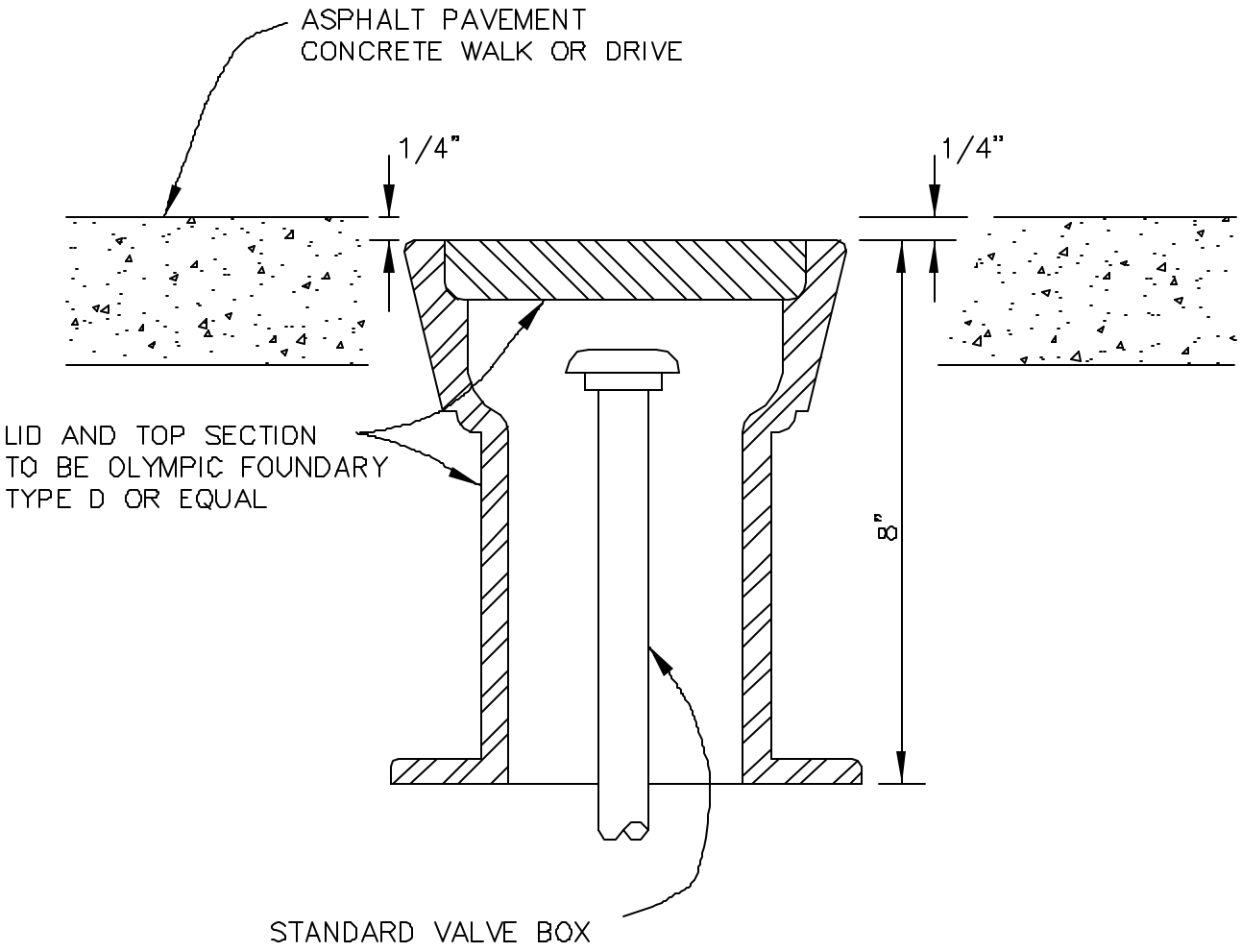
CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	MANHOLE CONE ADJUSTMENT	SECTION # 70.02 DETAIL # 70-1



NOTES:

1. ALL PERTINENT SECTIONS OF THE STANDARD SPEC. WILL APPLY.
2. REFER TO ASTM DESIGNATION C-478-69 FOR DESIGN AND STRENGTH REQUIREMENTS.
3. WHEN AN ADJUSTMENT REQUIRES MORE THAN 12" IN GRADE RINGS, A CONE ADJUSTMENT SHALL BE MADE.

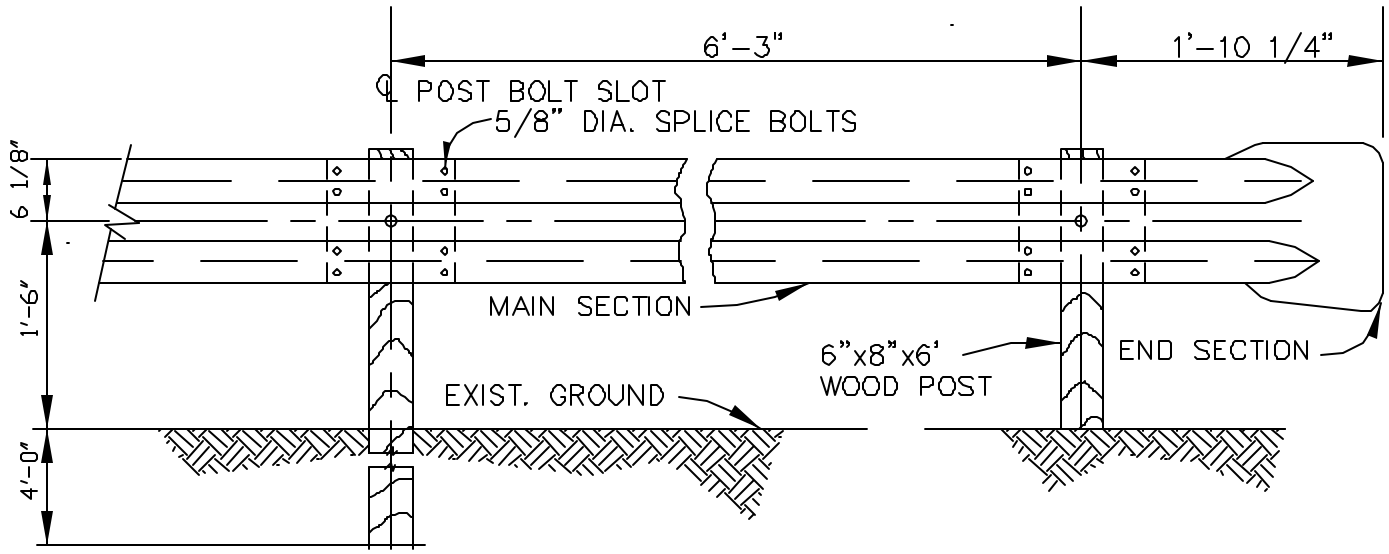
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	MANHOLE RING ADJUSTMENT	SECTION # 70.03 DETAIL # 70-2

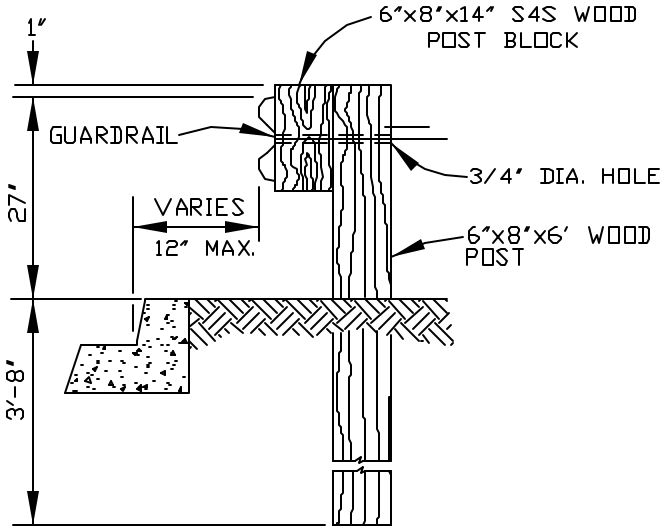


NOTE:

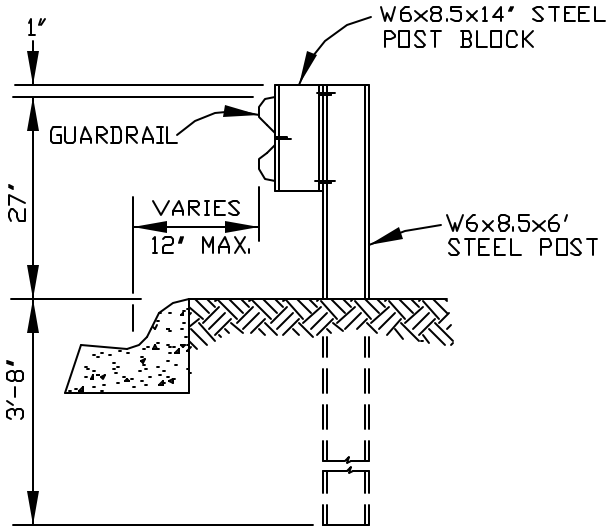
TYPICAL INSTALLATION WHEN VALVE BOX FALLS WITHIN ASPHALT PAVEMENT, CONCRETE WALK OR DRIVE.

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	ADJUST SERVICE VALVE BOX	SECTION # 70.09 DETAIL # 70-3





WOOD POST

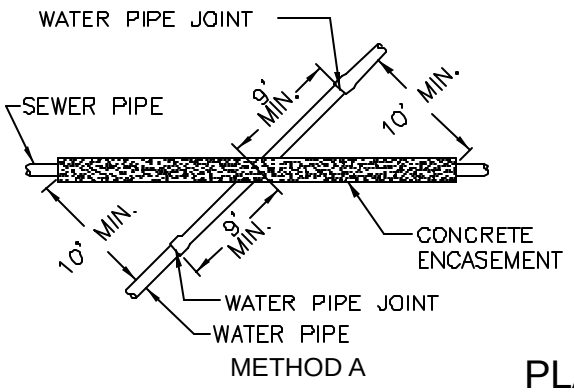


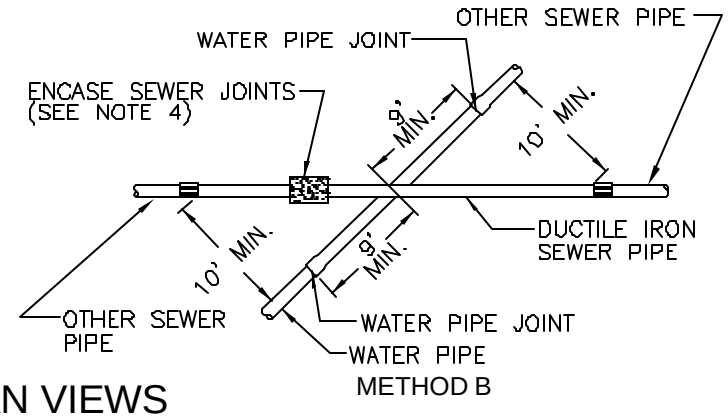
STEEL POST

NOTES:

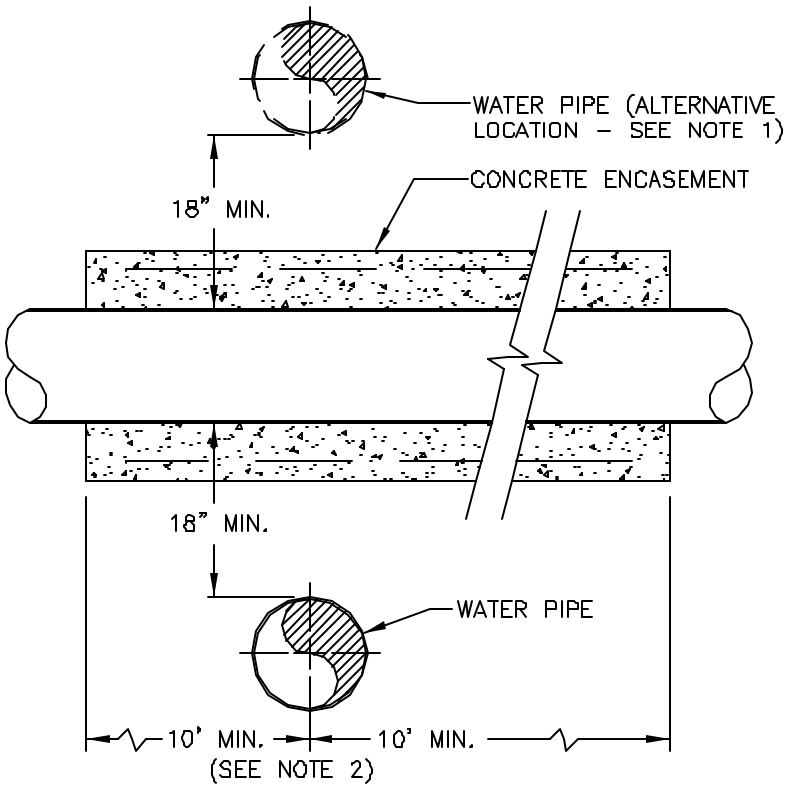
1. GUARD RAIL SHALL BE ARMCO FLEXBEAM OR ECONOBEAM OR EQUAL DEPENDING ON GAUGE AS SPECIFIED IN THE BID PROPOSAL.
2. MEASUREMENT OF GUARD RAIL WILL BE PER LINEAL FOOT ALONG THE FACE OF RAIL, INCLUDING END SECTIONS.
3. SEE STATE OF ALASKA DOT/PF STANDARD DETAIL G-12.00 FOR G2S GUARD-RAIL TRANSITION AT BRIDGES.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	GUARDRAIL DETAIL	SECTION # 70.13 DETAIL # 70-4



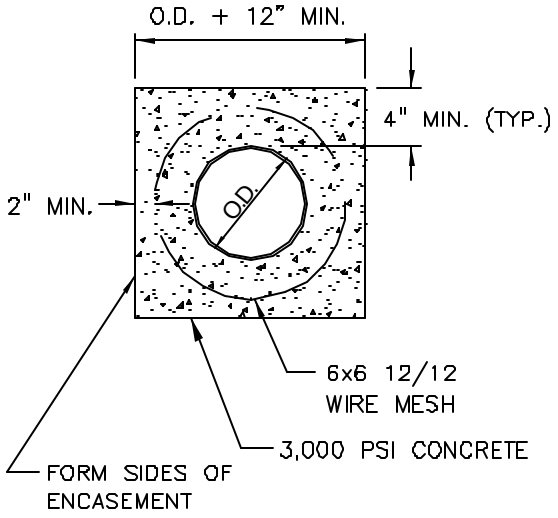


PLAN VIEWS



METHOD A

ELEVATION VIEW



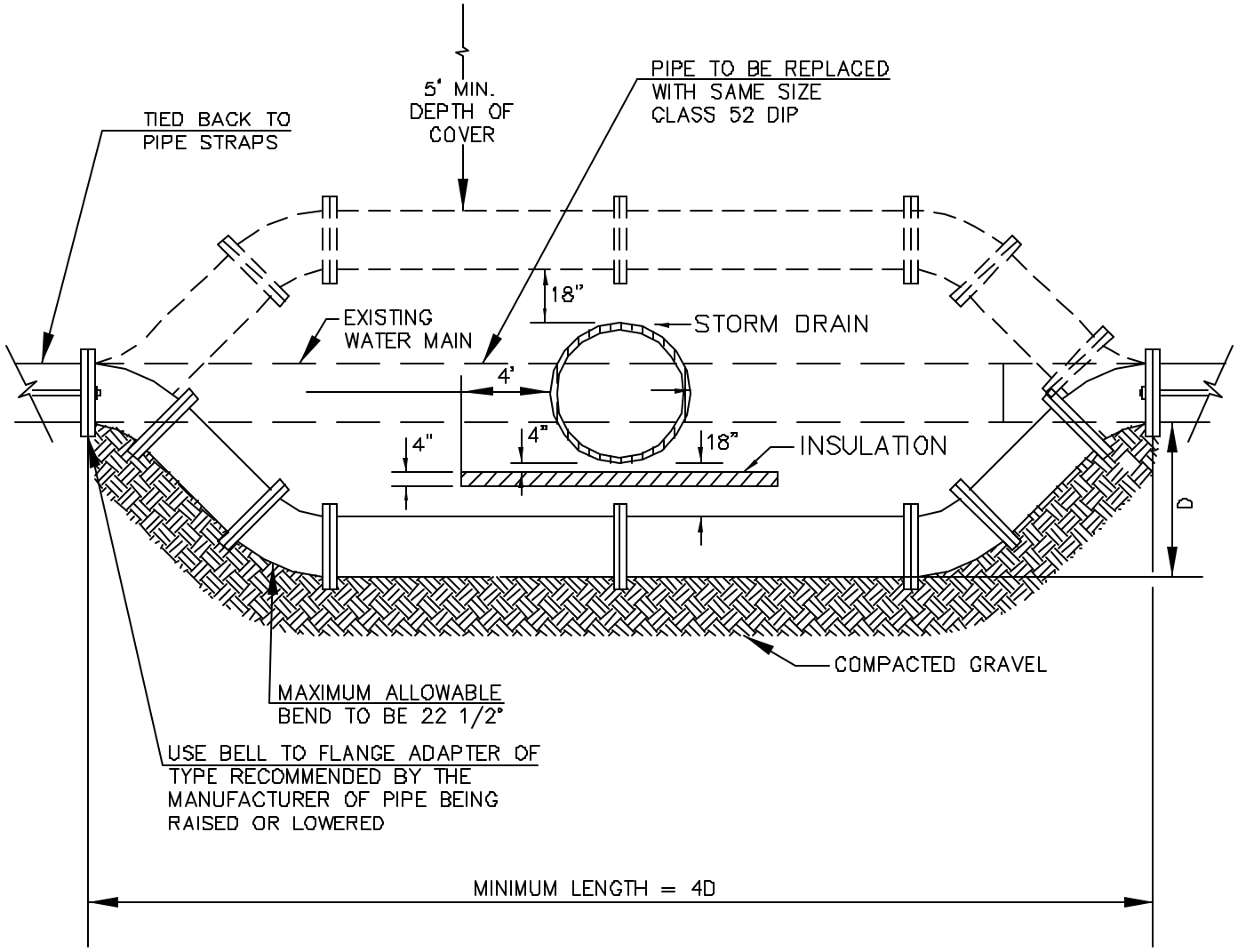
METHODS A & B

TYPICAL SECTION

NOTES:

1. IF SEWER MAIN IS ABOVE WATER MAIN, ENCASE SEWER MAIN AS DIRECTED BY THE ENGINEER.
2. A FULL LENGTH OF WATER PIPE SHALL BE CENTERED UNDER THE SANITARY SEWER CROSSING.
3. ON OBLIQUE CROSSINGS, THE TEN FOOT MEASUREMENT SHALL BE TAKEN PERPENDICULAR TO THE WATER PIPE.
4. FOR METHOD B, SEWER PIPE SHALL BE DUCTILE IRON PIPE FOR THE LENGTH SHOWN, AND ANY JOINTS SHALL BE ENCASED FOR A MINIMUM OF 18" ON EITHER SIDE OF THE JOINT.
5. ALTERNATIVE ENCASEMENT METHODS MAY BE USED SUCH AS HEAT SHRINK SEAL IF APPROVED BY THE ENGINEER.

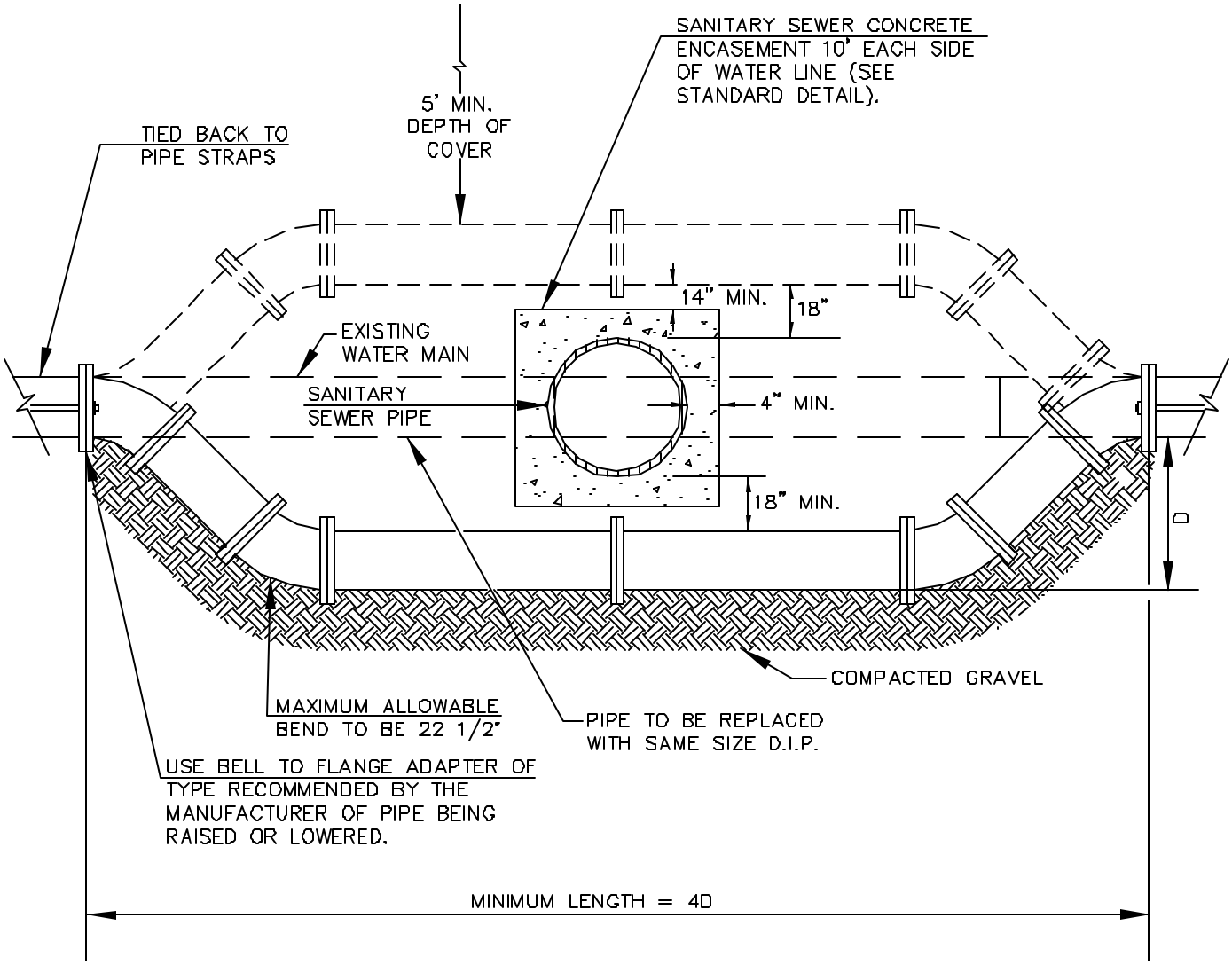
CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SANITARY SEWER ENCASEMENT	SECTION # 70.14 DETAIL # 70-5



NOTES:

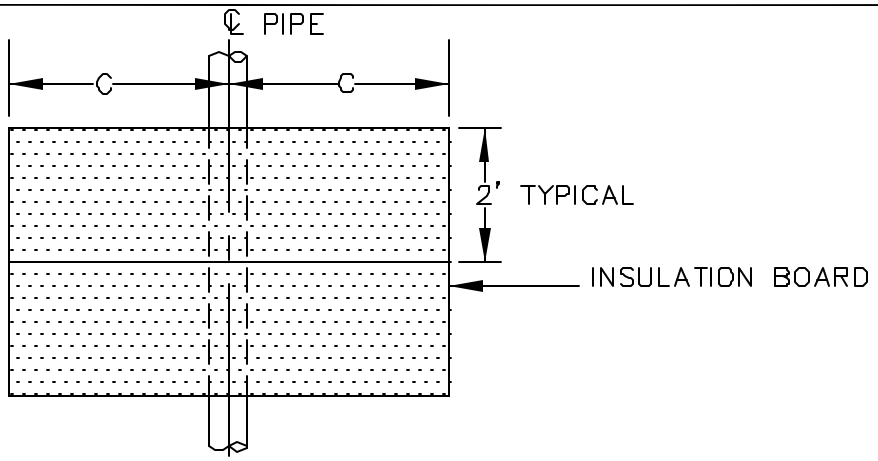
1. ALL JOINTS TO BE TIED TOGETHER WITH RESTRAINED JOINT PIPE FITTINGS– MEGA–LUG OR EQUAL.
2. RELOCATED WATER LINE SHALL BE NO LESS THAN 18" DISTANCE FROM STORM SEWER LINE.
3. INSULATION SHALL BE POSITIONED NO LESS THAN (4) FOUR INCHES FROM STORM SEWER.
4. MINIMUM VERTICAL SEPARATION IS (18") EIGHTEEN INCHES UNLESS INSULATED WITH (4) FOUR INCHES OF RIGID BOARD INSULATION IN CON– FORMANCE WITH SECTION 70.18 INSULATION. (2" STOCK WITH OVERLAPPING JOINTS)

CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# RELOCATE WATER MAIN (STORM DRAIN)	SECTION # 70.15 DETAIL # 70–6

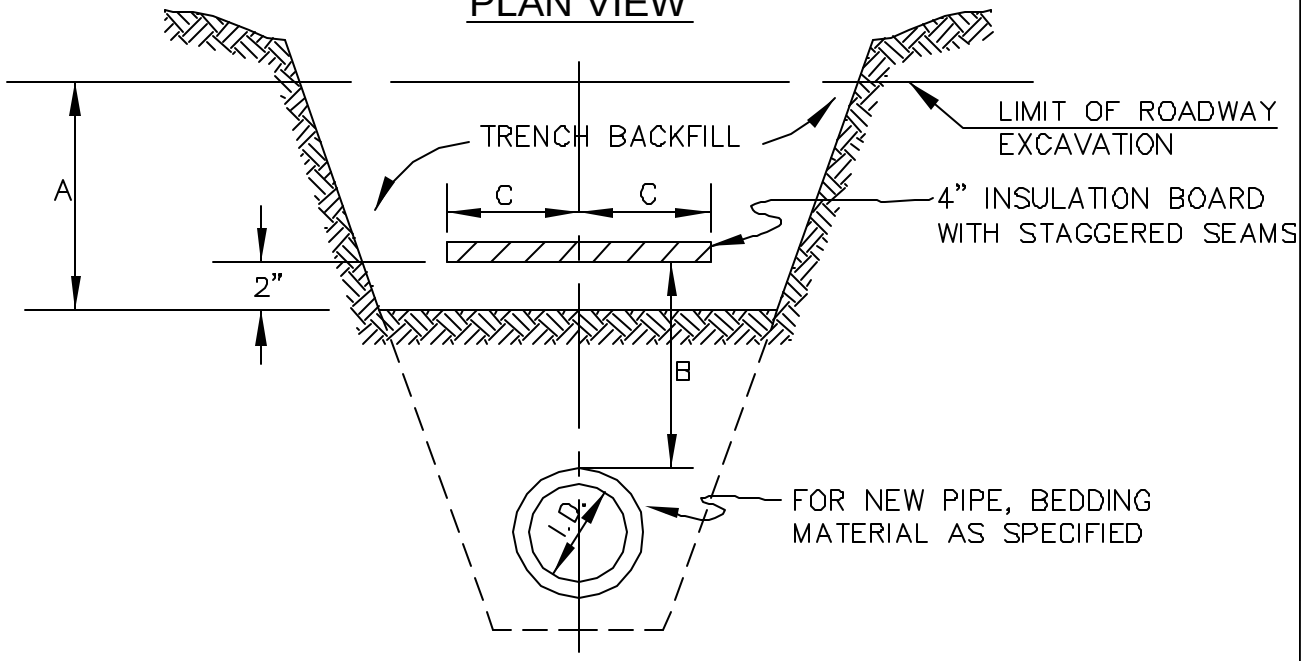


NOTE: ALL JOINTS TO BE TIED TOGETHER WITH RESTRAINED JOINT PIPE FITTINGS– MEGA–LUG OR EQUAL

CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	RELOCATE WATER MAIN (SANITARY SEWER)	SECTION # 70.15 DETAIL # 70–7



PLAN VIEW



PROFILE VIEW

B*	C			
	NEW MAIN	EXISTING MAIN	NEW SERVICE CON.	EXISTING SERVICE CON.
1'	2'		1'	
1' to 3'		2'		2'
3' to 5'		3'		3'
5' to 7'		4'		4'

* AS NOTED ON PLANS

A= DEPTH FOR PAYMENT UNDER "TRENCH EXCAVATION AND BACKFILL" WHERE INSULATION IS PLACED OVER EXISTING PIPE

NOTES:

1. THIS DETAIL APPLIES ONLY WHERE INSULATION IS REQUIRED BY THE PLANS.
2. MAXIMUM I.D. = 12"

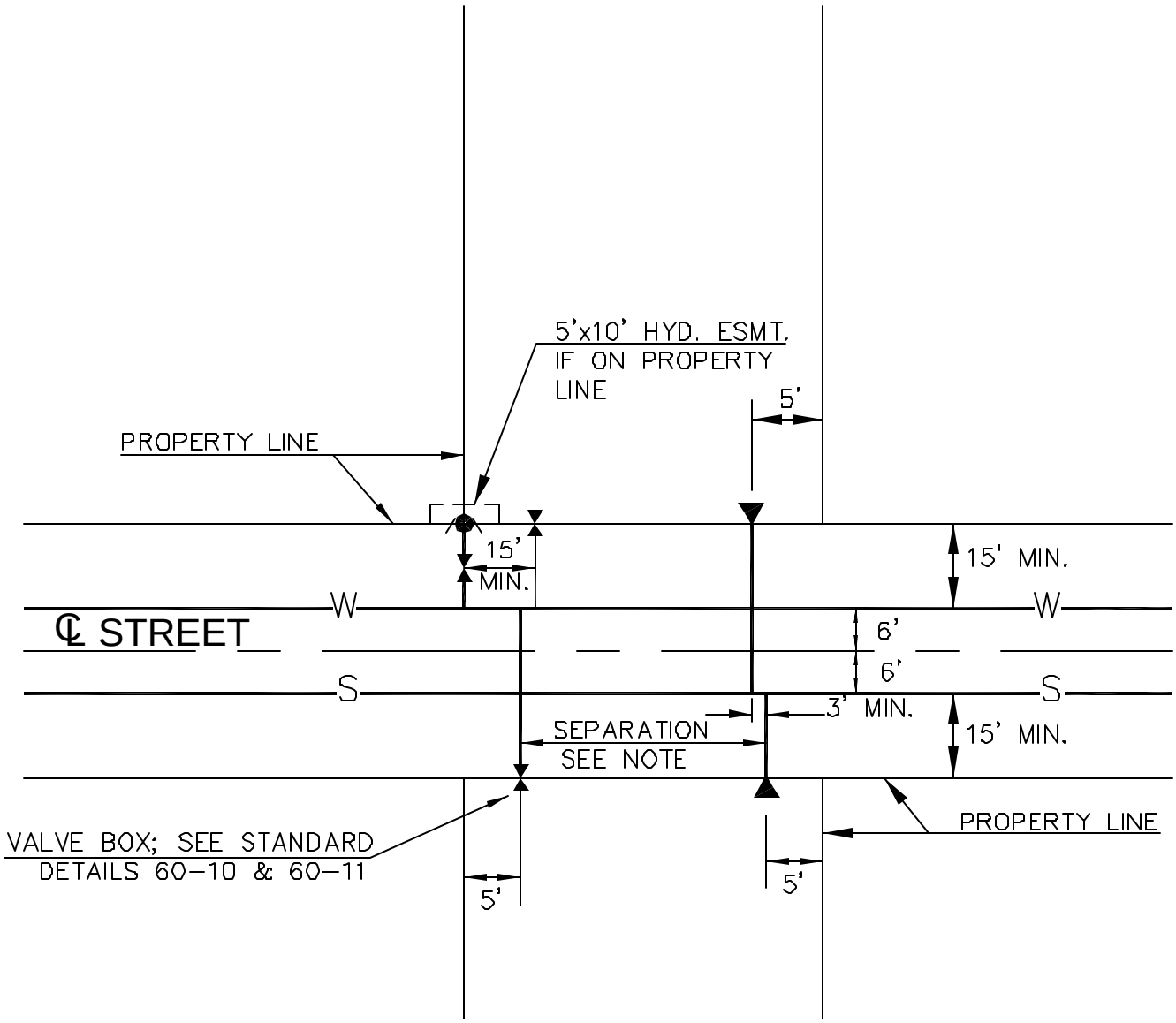
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

PIPE INSULATION

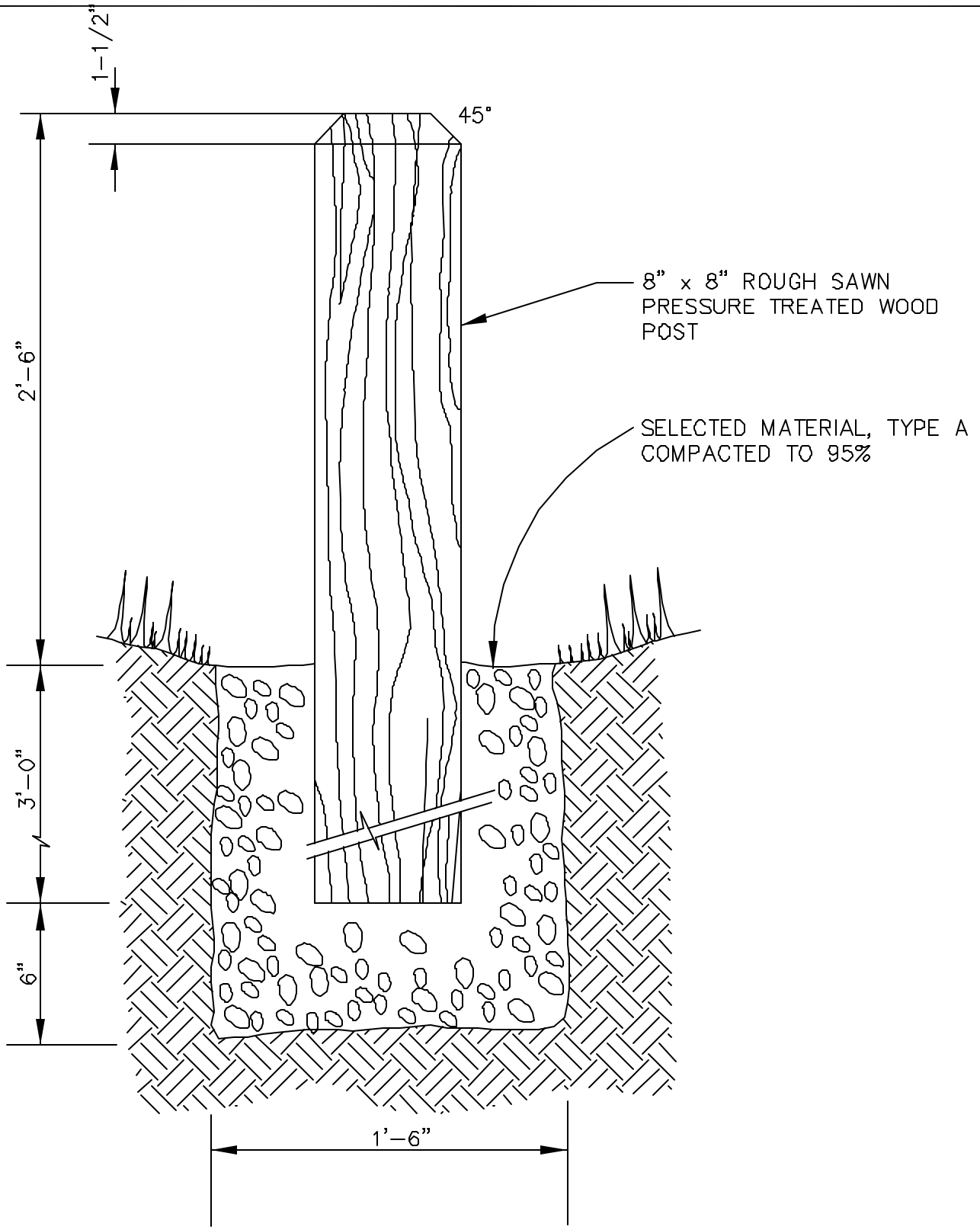
SECTION # 70.16

DETAIL # 70-8



NOTE:
3' MIN. SEPARATION FOR PRIVATE SERVICES, 10' MIN. SEPARATION FOR PUBLIC SERVICES AS DEFINED BY ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	TYPICAL WATER AND SEWER LOCATIONS	SECTION # MISC. DETAIL # 70-9

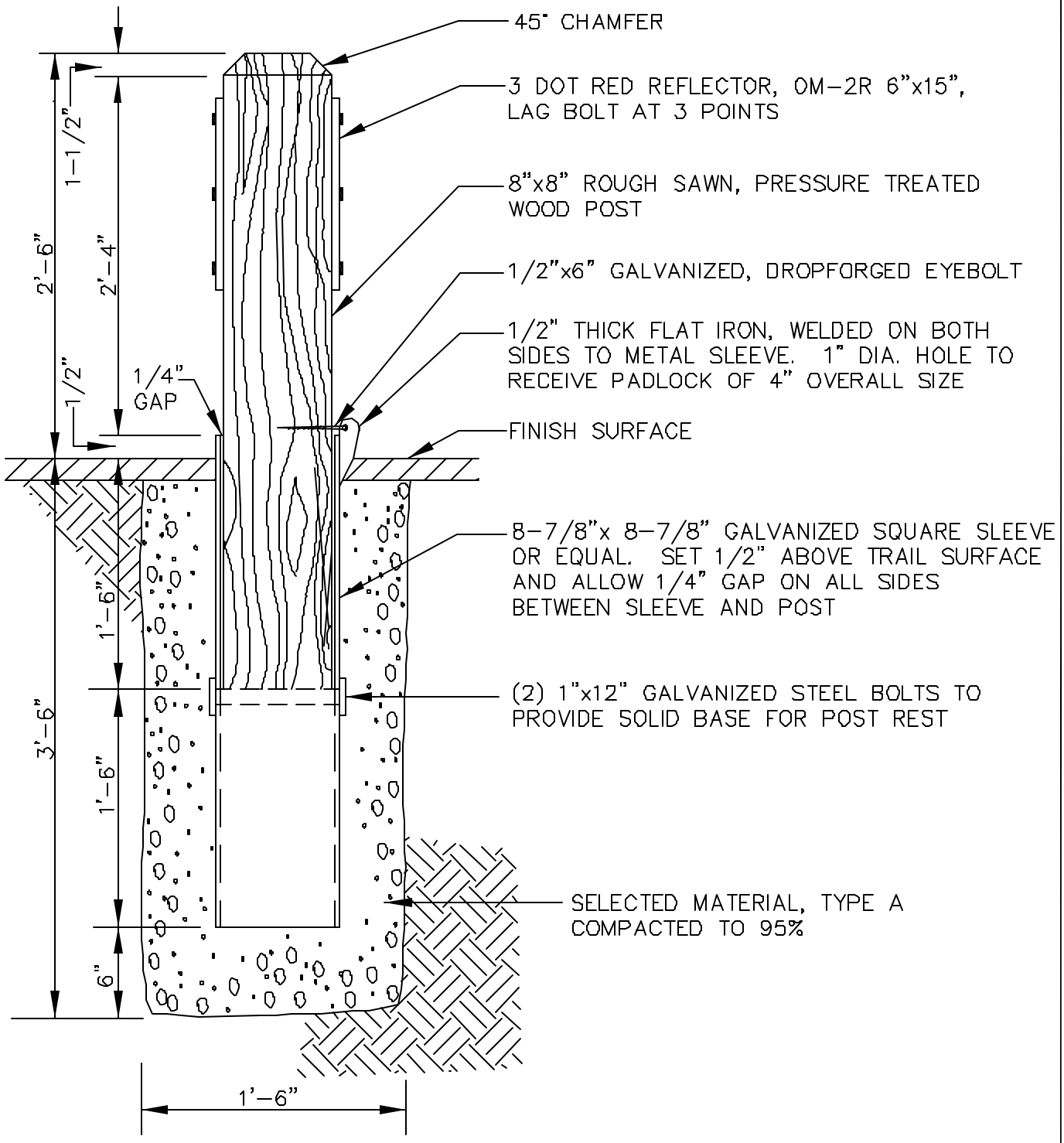


CITY AND BOROUGH OF SITKA INCORPORATED 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

SOLID BOLLARD

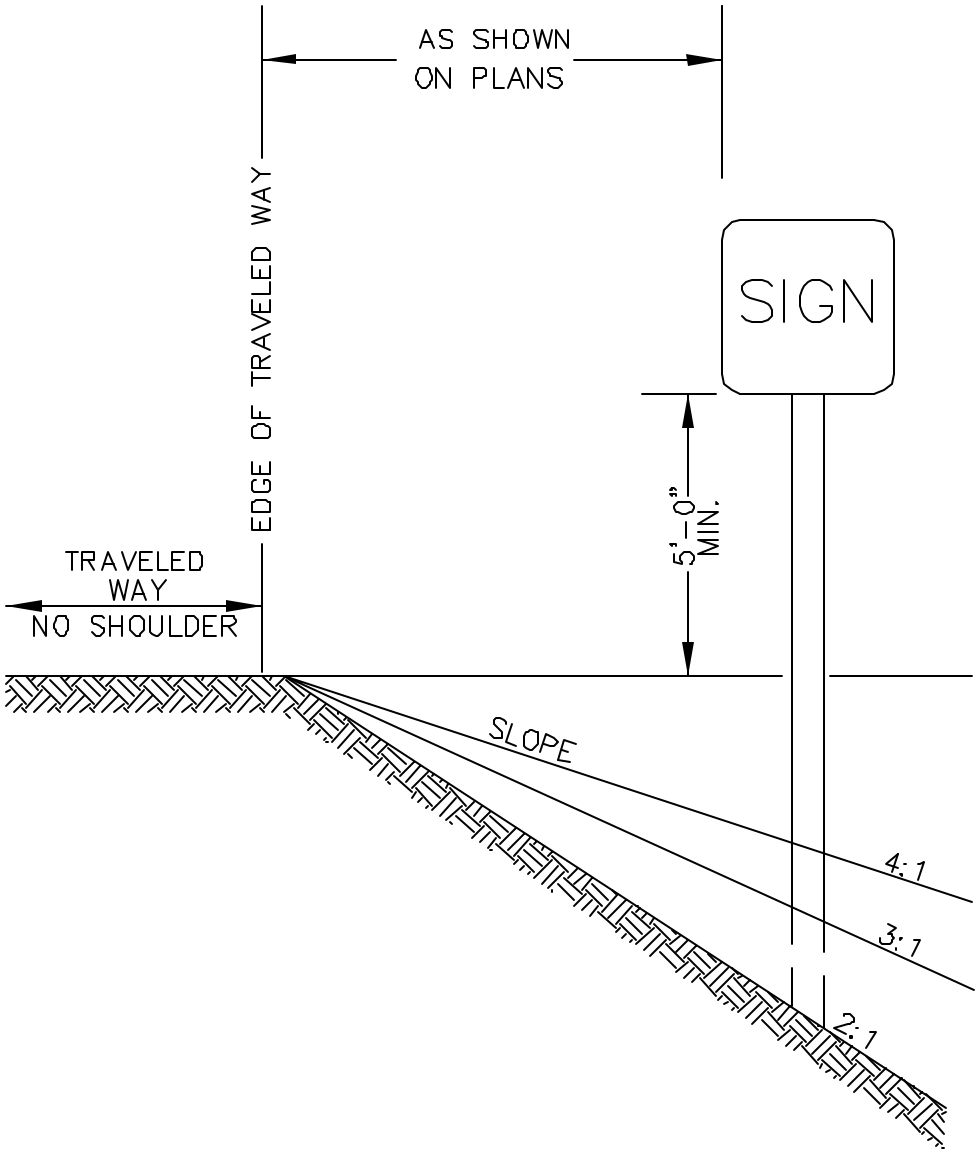
SECTION # MISC.
DETAIL # 70-10



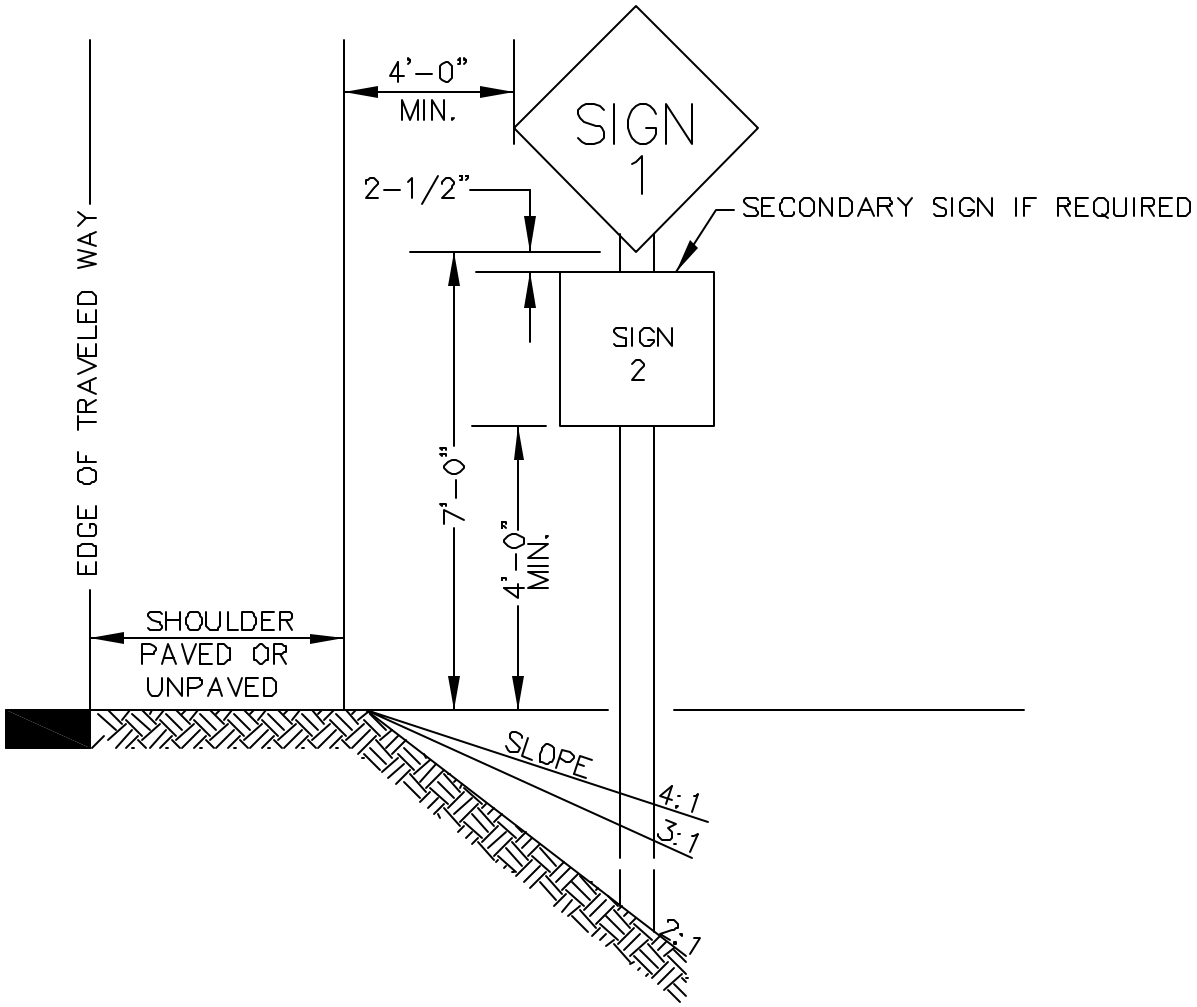
NOTE:

1. PADLOCK SHOULD BE LOCATED OUT OF TRAFFIC FLOW. PADLOCK PROVIDED BY PARK MAINTENANCE CREW.

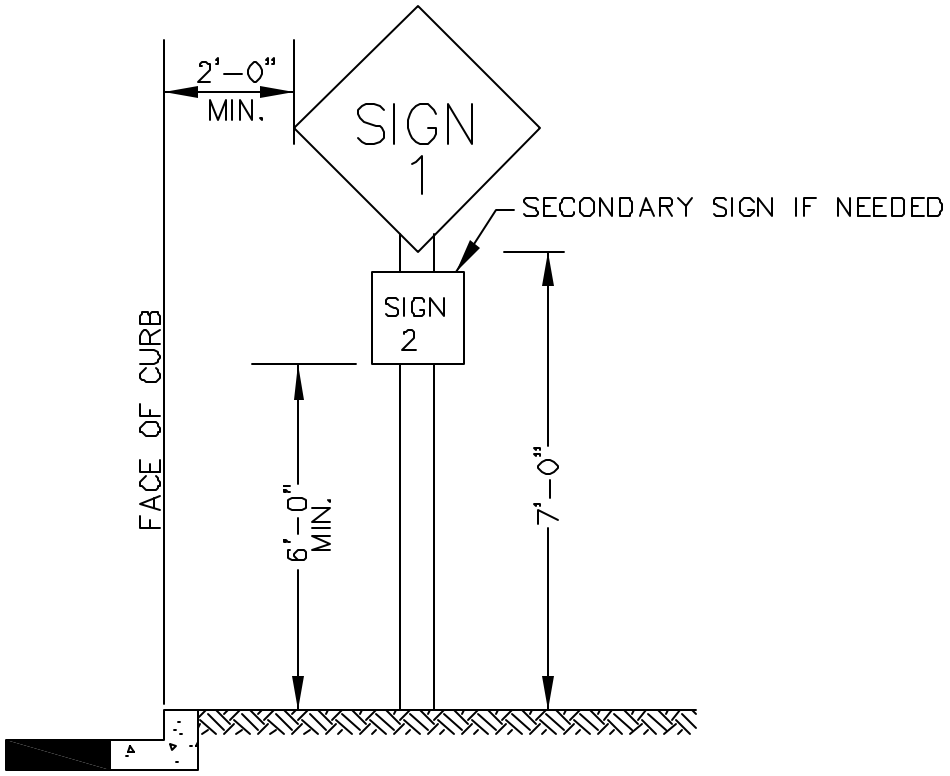
CITY AND BOROUGH OF SITKA DECEMBER 7, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# REMOVABLE BOLLARD	SECTION # MISC. DETAIL # 70-11



CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SIGN PLACEMENT NO CURB OR SHOULDER	SECTION # 70.18 DETAIL # 70-12



CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SIGN PLACEMENT SHOULDER WITHOUT CURB	SECTION # 70.18 DETAIL # 70–13

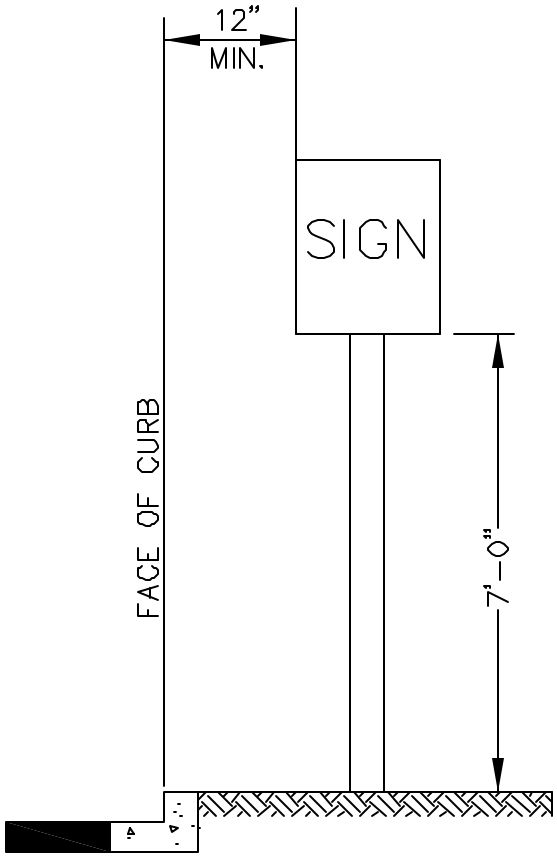


SCALE:
NTS
APPROVED:
RAR
REVISED:
11/29/02

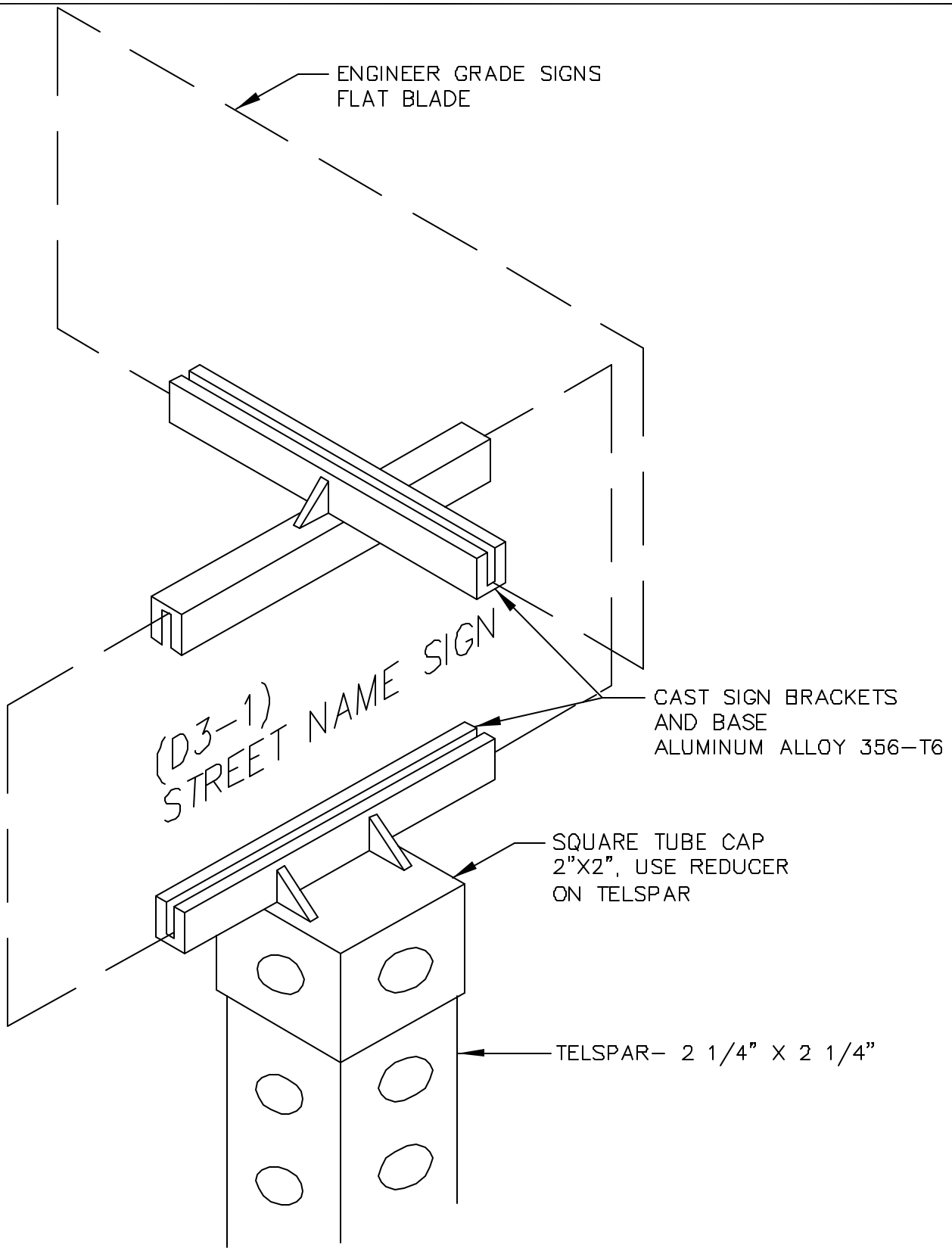
SIGN PLACEMENT
CURB WITHOUT SIDEWALK

SECTION #
70.18

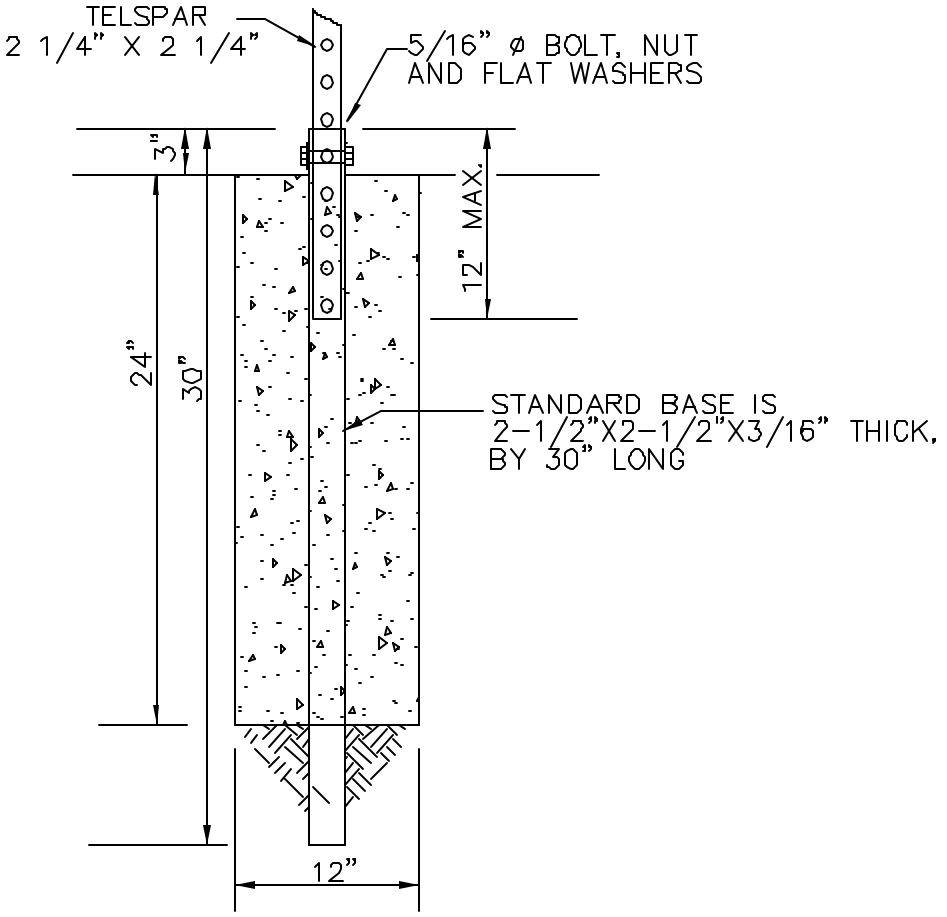
DETAIL #
70-14



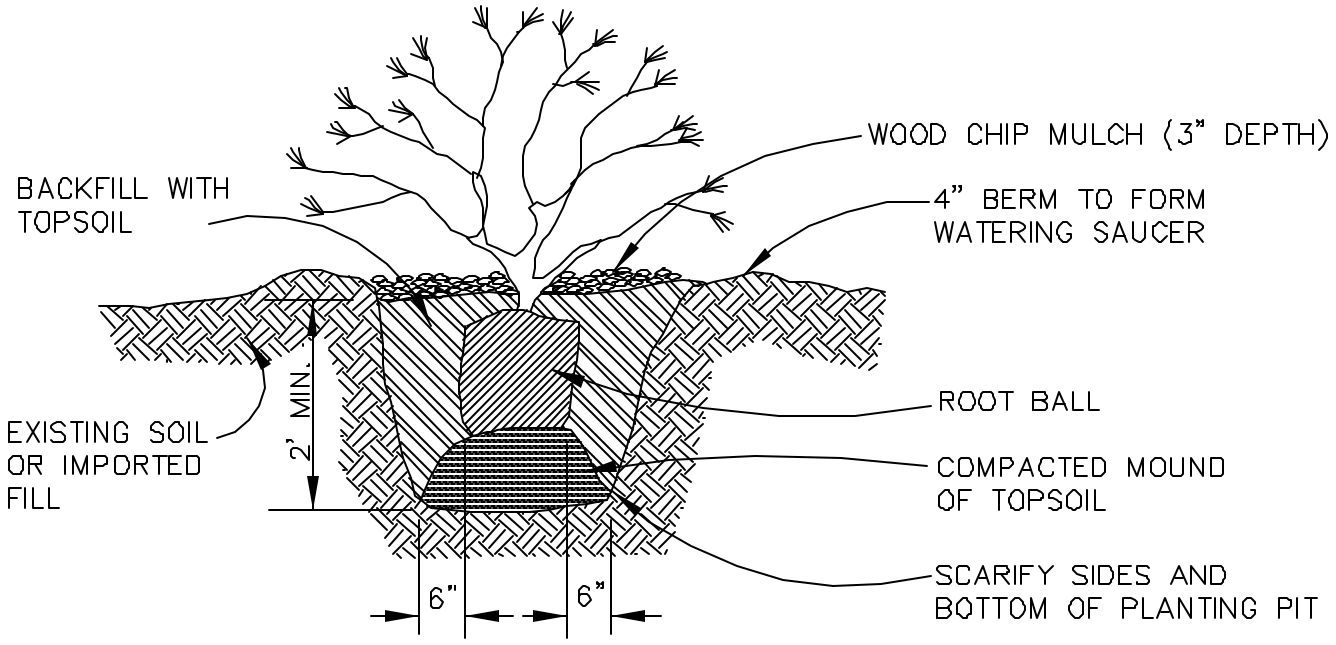
CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SIGN PLACEMENT CURB WITH SIDEWALK	SECTION # 70.18 DETAIL # 70-15



CITY AND BOROUGH OF SITKA	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	STREET NAME SIGNS	SECTION # 70.18 DETAIL # 70-16



CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CONCRETE FOUNDATION FOR SIGN POST	SECTION# 70.18 DETAIL # 70-17

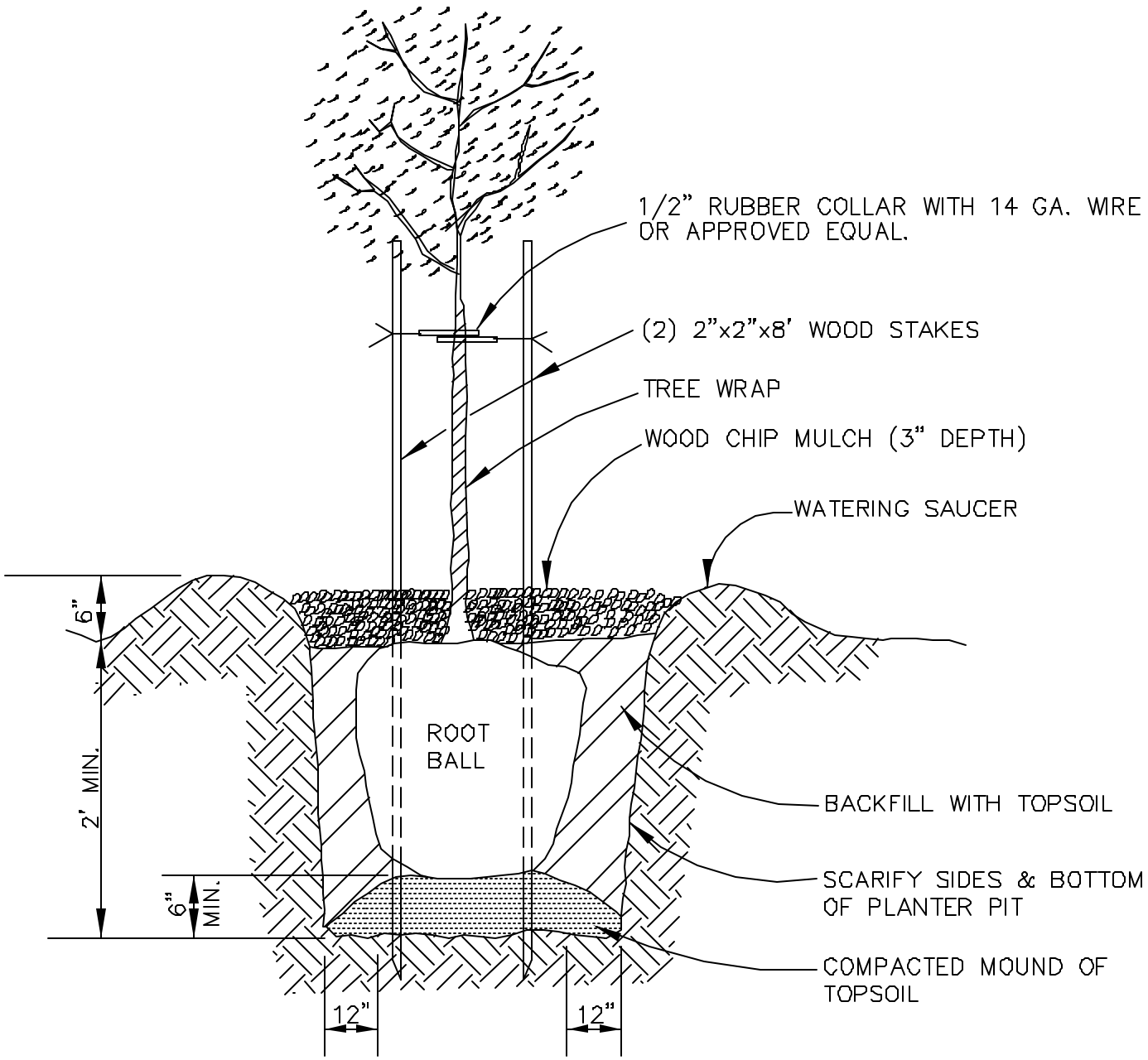


CITY AND BOROUGH OF SITKA
DECEMBER 2, 1971

SCALE: NTS
APPROVED: RAR
REVISED: 11/29/02

SHRUB PLANTING DETAIL

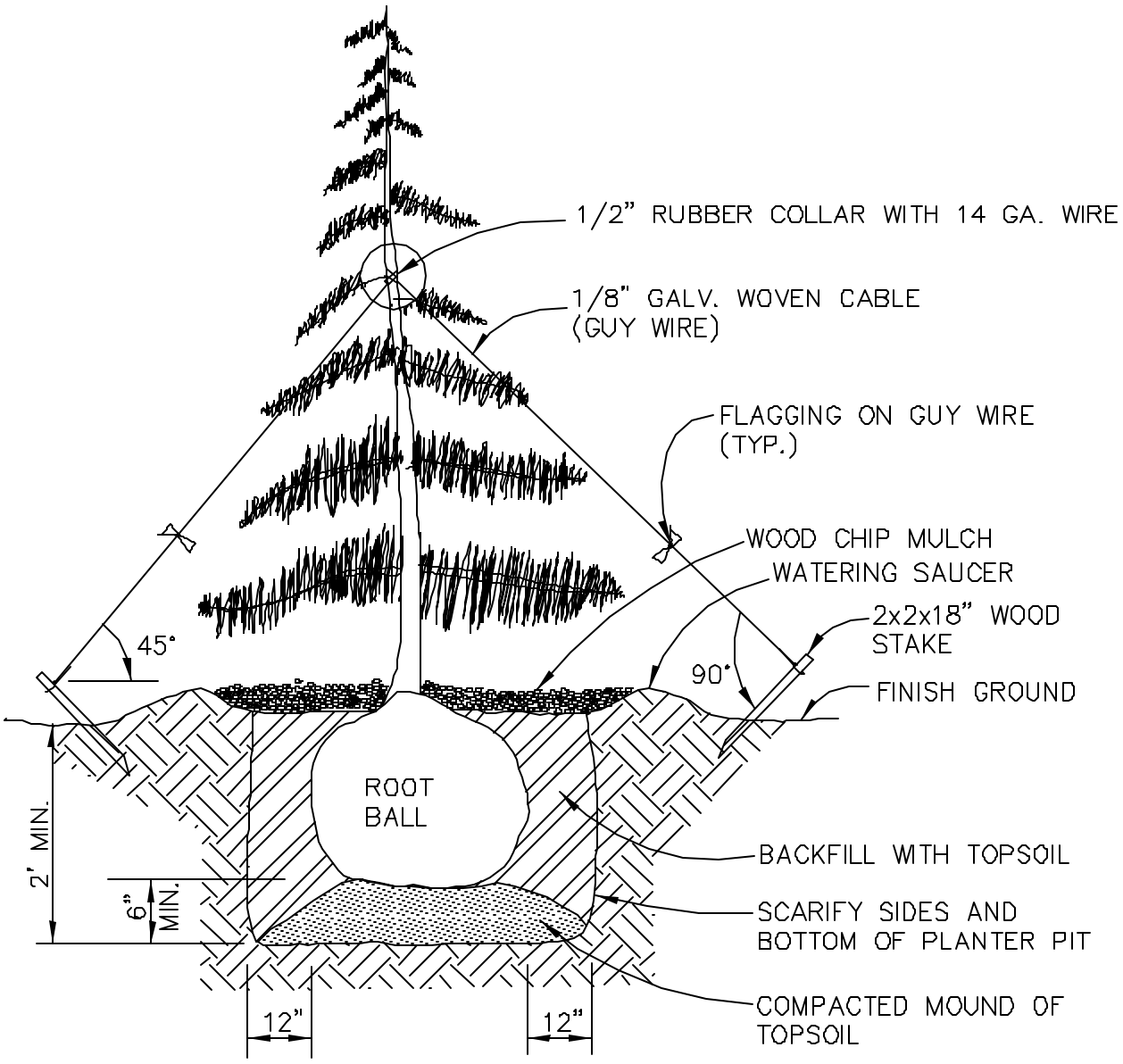
SECTION# 75.02
DETAIL # 75-1



NOTES:

1. WRAP TREES FROM GROUND TO FIRST BRANCH USING "TREE WRAP" OR APPROVED EQUAL.
2. IF ROOTBALL IS B & B, REMOVE BURLAP FROM TOP OF ROOTBALL.
3. DO NOT PENETRATE ROOTBALL WITH TREE STAKES.

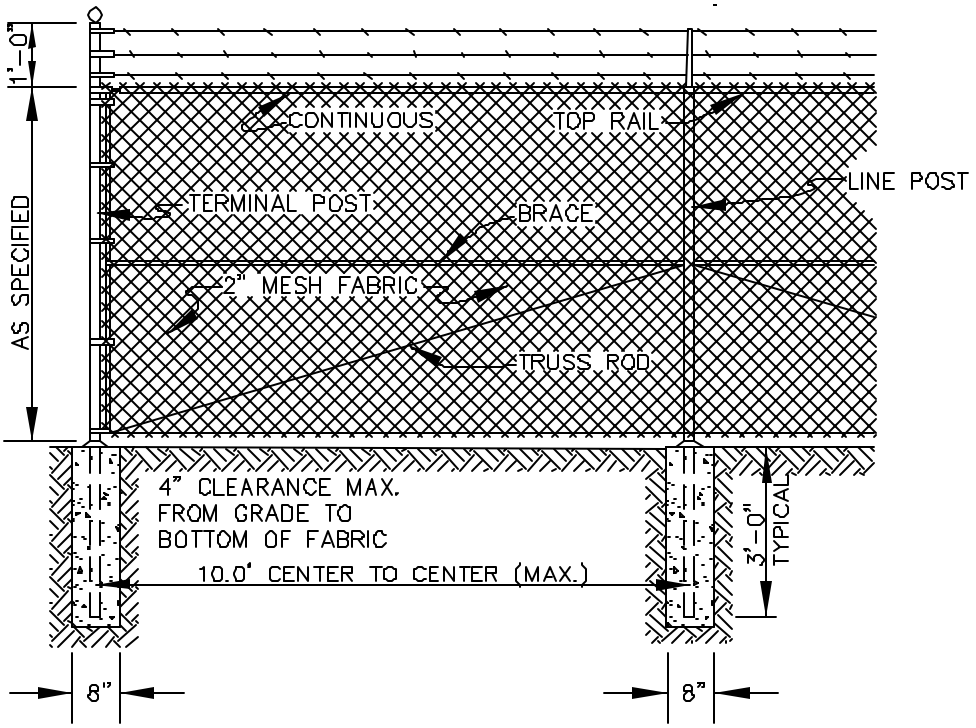
CITY AND BOROUGH OF SITKA DECEMBER 1, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	# DECIDUOUS TREE PLANTING DETAIL	SECTION # 75.02 DETAIL # 75-2

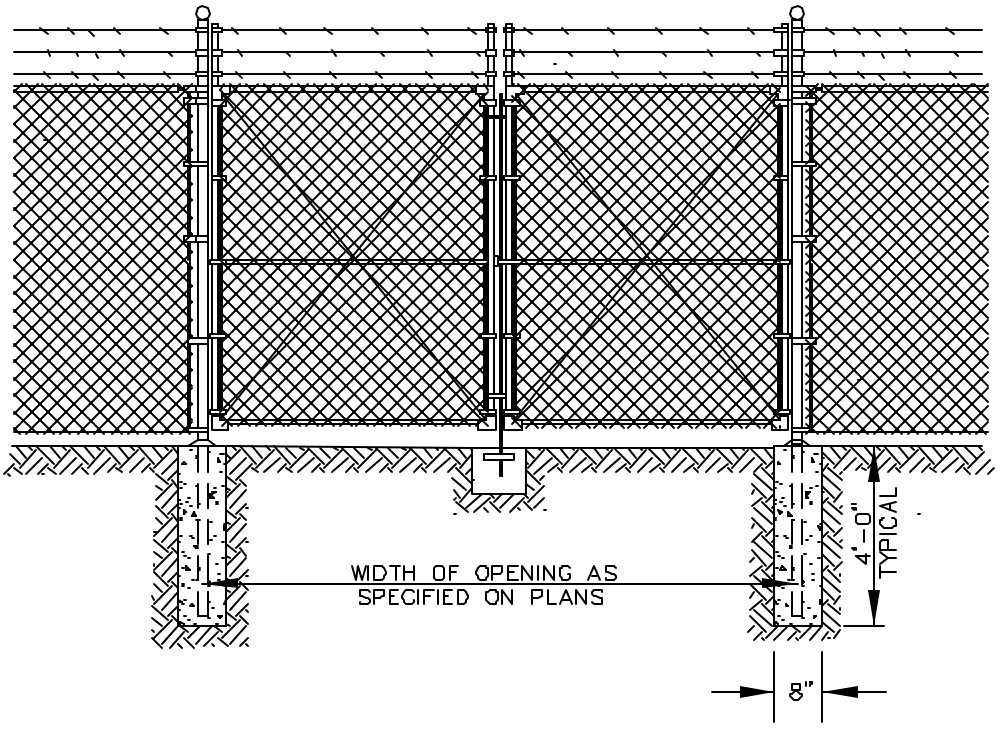


NOTES

1. SPACE THREE (3) GUYS EQUALLY AROUND TREE.
2. DO NOT PENETRATE ROOT BALL WITH STAKES.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	CONIFER PLANTING DETAIL	SECTION # 75.02 DETAIL # 75-3

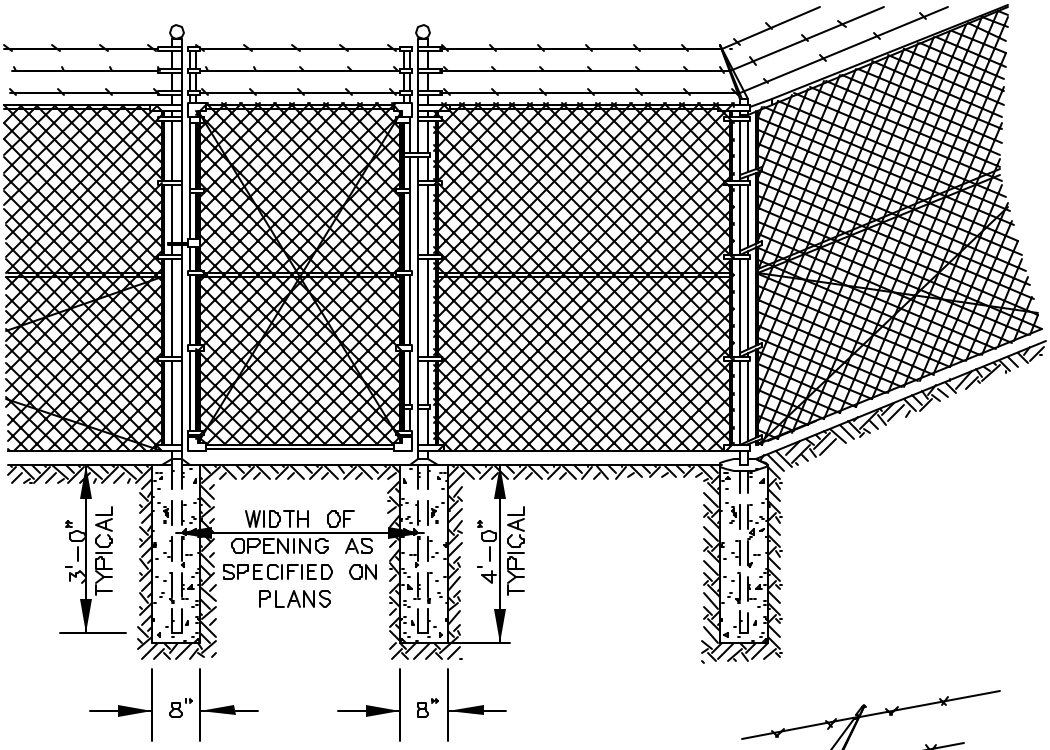


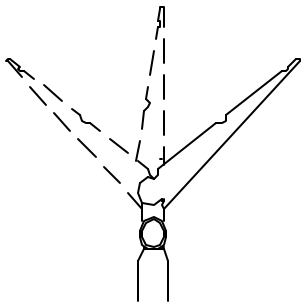


NOTES:

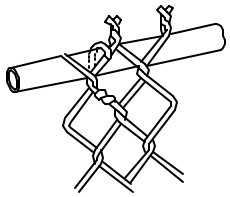
1. GAUGE OF FABRIC TO BE SPECIFIED ON PLANS.
2. SIZE OF TUBULAR STEEL FOR GATE FRAMES IS SPECIFIED IN STANDARD CONSTRUCTION SPECIFICATION FOR CHAIN LINK FENCES.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	FENCE DETAILS	SECTION 75.06 DETAIL 75-4

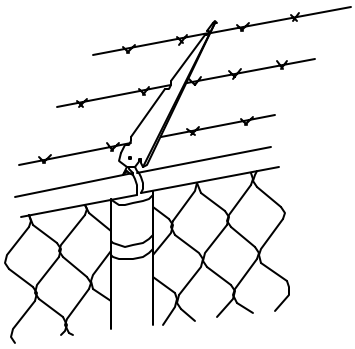




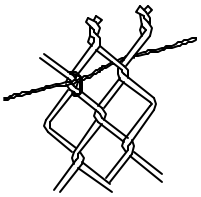
H-H EYETOP LINETOP FITTING



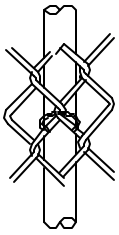
METHOD OF TYING FABRIC TO TOP RAIL



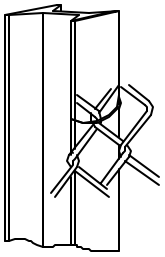
TOP FINISH OF STEEL GUARD POST



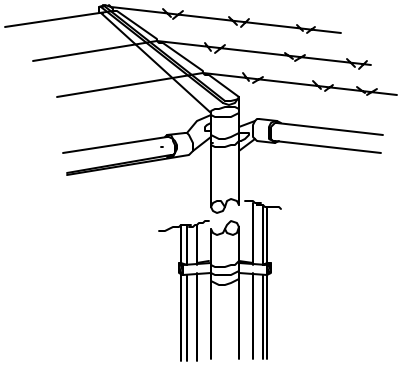
METHOD OF TYING FABRIC TO COIL SPRING TENSION WIRE



METHOD OF TYING FABRIC TO TUBULAR POST



METHOD OF TYING FABRIC TO H-POST

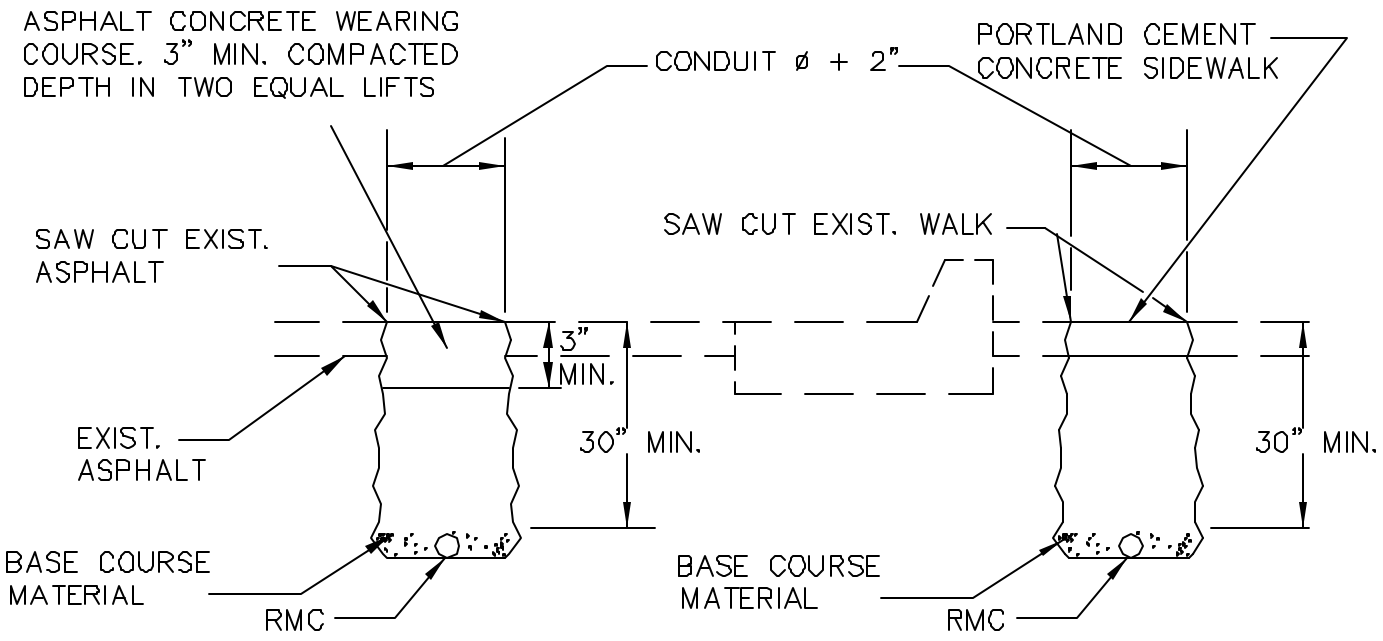


CORNER POST CONNECTION

NOTE:

1. SIZE OF TUBULAR STEEL FOR GATES IS SPECIFIED IN STANDARD CONSTRUCTION SPECIFICATIONS FOR CHAIN LINK FENCES.

CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	FENCE DETAILS	SECTION # 75.06 DETAIL # 75-5



CITY AND BOROUGH OF SITKA DECEMBER 2, 1971	SCALE: NTS APPROVED: RAR REVISED: 11/29/02	SAW CUT TRENCH	SECTION# 80.02 DETAIL # 80-1