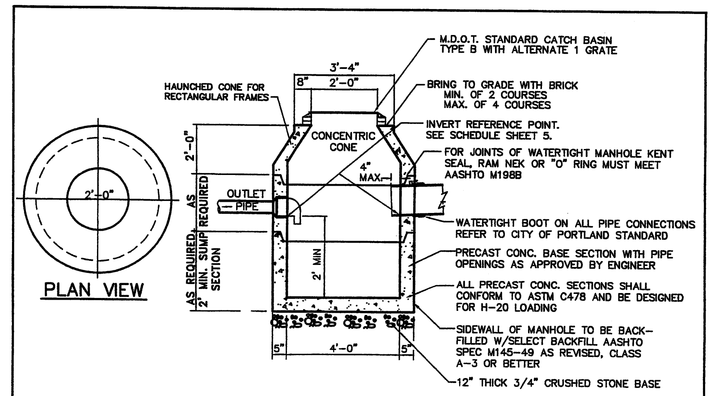
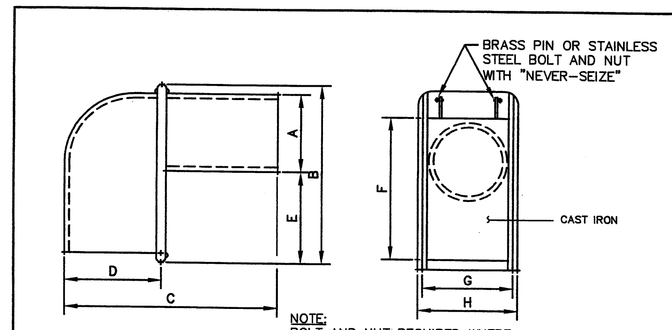


A 4'-0" PRECAST CATCH BASIN
N.T.S.



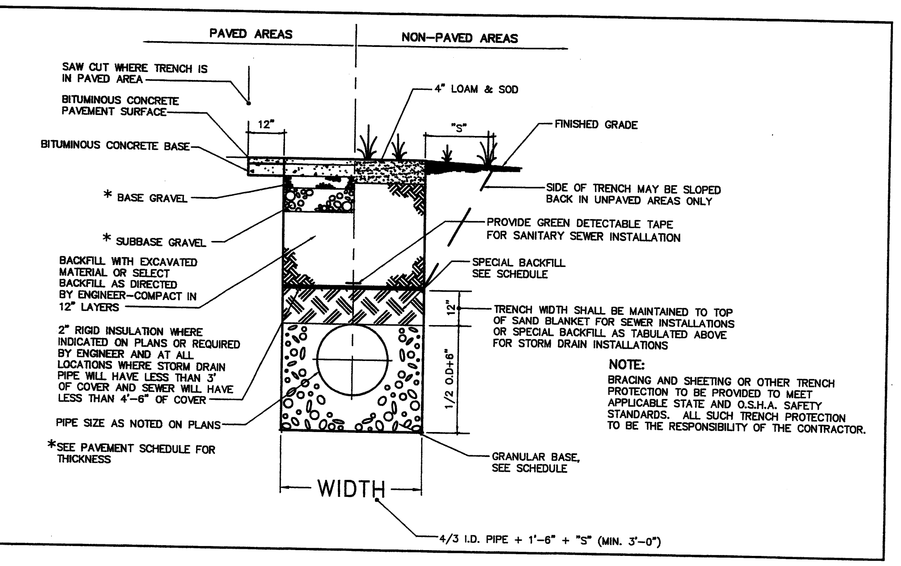
NOTE:
BOLT AND NUT REQUIRED WHERE HOOD WILL NOT OPEN COPMLETELY

SIZE	A	B	C	D	E	F	G	H
6 in.	5 1/2"	13 3/8"	13 3/4"	5 3/8"	5 7/8"	11 5/8"	6 1/2"	7 1/4"
8 in.	7 1/2"	15"	15 3/8"	5 1/2"	5 3/8"	13 3/4"	8 3/4"	9 3/8"
10 in.	9 1/2"	16"	16 1/4"	6"	4 1/2"	14 1/8"	11 1/2"	12 3/8"
12 in.	11 1/2"	17"	22"	8"	3 1/2"	17"	12 1/2"	13 3/8"

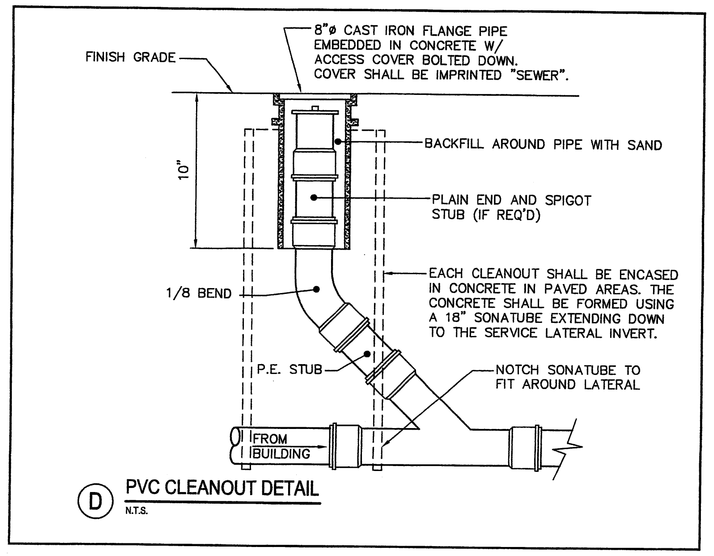
B CASCO TRAP DETAIL
N.T.S.

SCHEDULE OF BACKFILL

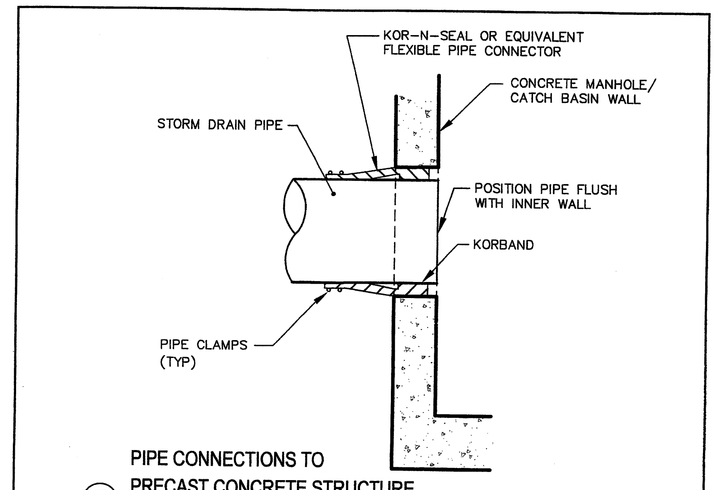
TYPE OF PIPE	GRANULAR BASE	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (IN)	SELECT BACKFILL
DUCTILE IRON	GRANULAR AASHTO M145-49 A-3 OR BETTER	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
CONCRETE	GRANULAR AASHTO M145-49 A-3 OR BETTER	GRANULAR AASHTO M145-49 A-3 OR BETTER	12	GRANULAR AASHTO M145-49 A-3 OR BETTER
PVC	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
CMP	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER



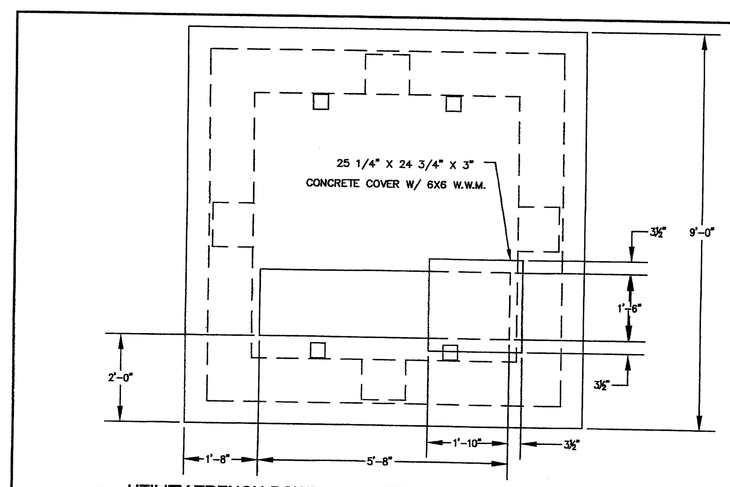
C TYPICAL STORM DRAIN, SEWER & WATER TRENCH DETAIL
N.T.S.



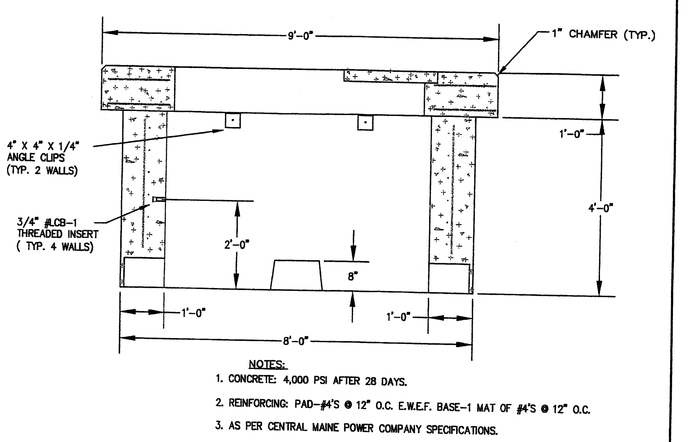
D PVC CLEANOUT DETAIL
N.T.S.



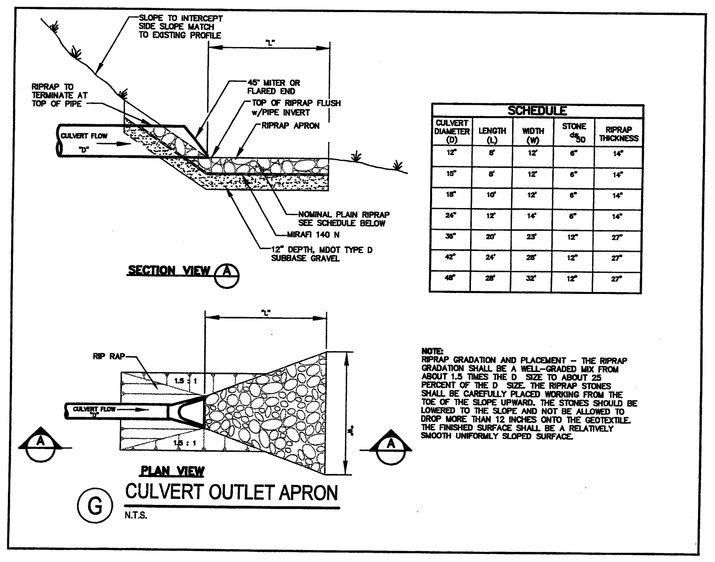
PIPE CONNECTIONS TO PRECAST CONCRETE STRUCTURE
E N.T.S.



F UTILITY TRENCH-POWER & TELEPHONE
N.T.S.



NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
2. REINFORCING: PAD-#4'S @ 12" O.C. E.W.E.F. BASE-1 MAT OF #4'S @ 12" O.C.
3. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS.
4. 1-8" X 12" KNOCKOUT PROVIDED IN EACH WALL; LARGER KNOCKOUTS ARE AVAILABLE.
5. PROVIDED WITH LIFTING INSERTS.
6. ACTUAL SIZE TO BE DETERMINED BY ELECTRICIAN PRIOR TO ORDERING AND DELIVERY OF PAD.

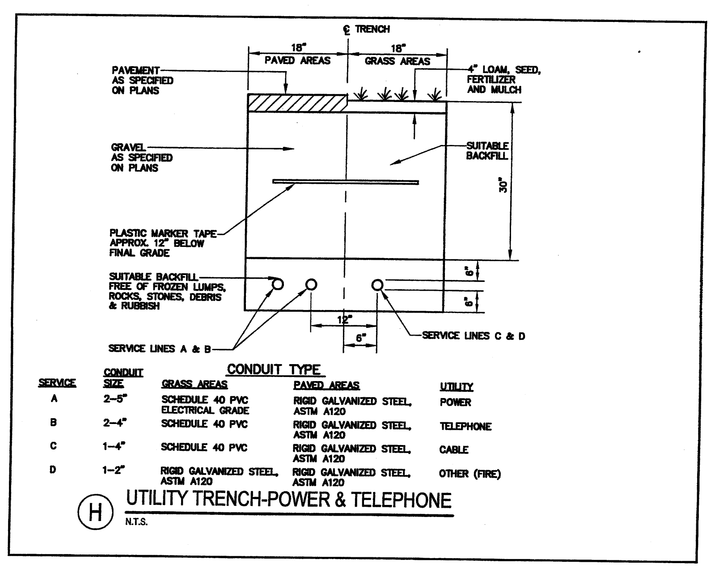


SCHEDULE

CULVERT DIAMETER (D)	LENGTH (L)	WIDTH (W)	STONE d50	RIPRAP THICKNESS
12"	6'	12'	6"	14"
15"	6'	12'	6"	14"
18"	10'	12'	6"	14"
24"	12'	14'	6"	14"
36"	20'	22'	12"	27"
42"	24'	28'	12"	27"
48"	28'	32'	18"	27"

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE TO THE TOP. LARGER STONES SHALL BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

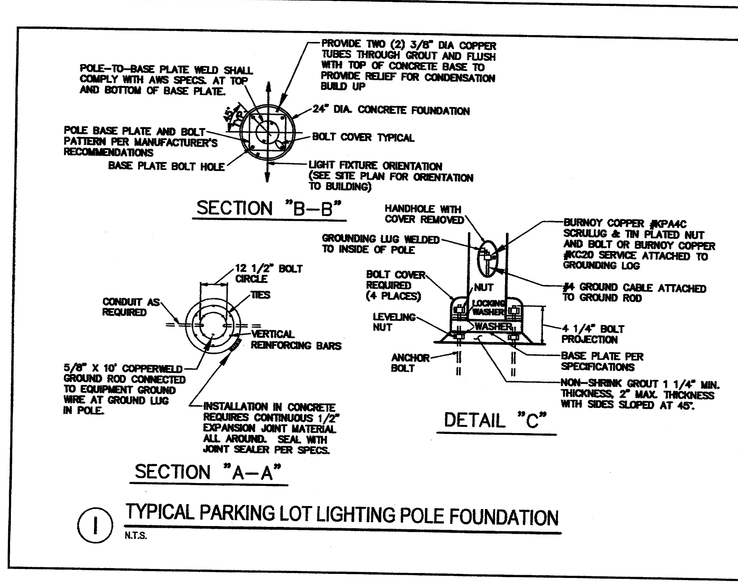
G CULVERT OUTLET APRON
N.T.S.



CONDUIT TYPE

SERVICE	CONDUIT SIZE	GRASS AREAS	PAVED AREAS	UTILITY
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	RIGID GALVANIZED STEEL, ASTM A120	POWER
B	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	TELEPHONE
C	1-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	CABLE
D	1-2"	RIGID GALVANIZED STEEL, ASTM A120	RIGID GALVANIZED STEEL, ASTM A120	OTHER (FIRE)

H UTILITY TRENCH-POWER & TELEPHONE
N.T.S.



NOTES:
1. 3500 P.S.I. MIN. 28 DAY COMPRESSIVE STRENGTH CONC. WITH GRADE 60 REINF. STEEL.
2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
3. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
5. FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF. UTILIZING AASHTO FIGURE 1.8.2CC(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".
6. FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2CC(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".
7. EXPOSED CONCRETE AND GROUT SHALL BE PAINTED TRAFFIC YELLOW.
8. DETAIL FOR 20' POLE WITH MAX. FIXTURE EPA 4.6 S.F.
9. CONFIRM ANCHOR BOLT PLACEMENT AND PATTERN WITH LIGHT POLE MANUFACTURER BEFORE PREPARING FOUNDATION
10. EXCAVATION WILL LIKELY BE BELOW WATER TABLE - DO NOT LEAVE EXCAVATION OPEN FOR EXTENDED PERIODS

I TYPICAL PARKING LOT LIGHTING POLE FOUNDATION
N.T.S.

REV	DATE	DESCRIPTION
6	02.11.04	RELEASED FOR CONSTRUCTION
5	12.30.03	REISSUED TO PORTLAND PLANNING AUTHORITY
4	10.29.03	REVISED BUILDING LAYOUT - ISSUED FOR OWNERS REVIEW
3	01.24.03	RELEASED FOR CONSTRUCTION
2	11.5.02	REVISED FOR PRICING
1	10.22.02	SUBMITTED FOR SITE PLAN REVIEW

REVISIONS

STATE OF MAINE
STEPHEN R. BUSHEY
REGISTERED PROFESSIONAL ENGINEER

P.E. STEPHEN R. BUSHEY
LIC. #7429

PROJECT
SENIOR HOUSING FACILITY & HEALTH CENTER
PORTLAND, MAINE

SHEET TITLE
UTILITY AND STORM DRAIN DETAILS

CLIENT
VOLUNTEERS OF AMERICA

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DRAWN: CMW | DATE: NOV. 2002
DESIGNED: JCM | SCALE: AS NOTED
CHECKED: SRB | JOB NO. 2301
FILE NAME: 2301-DET-EROS
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