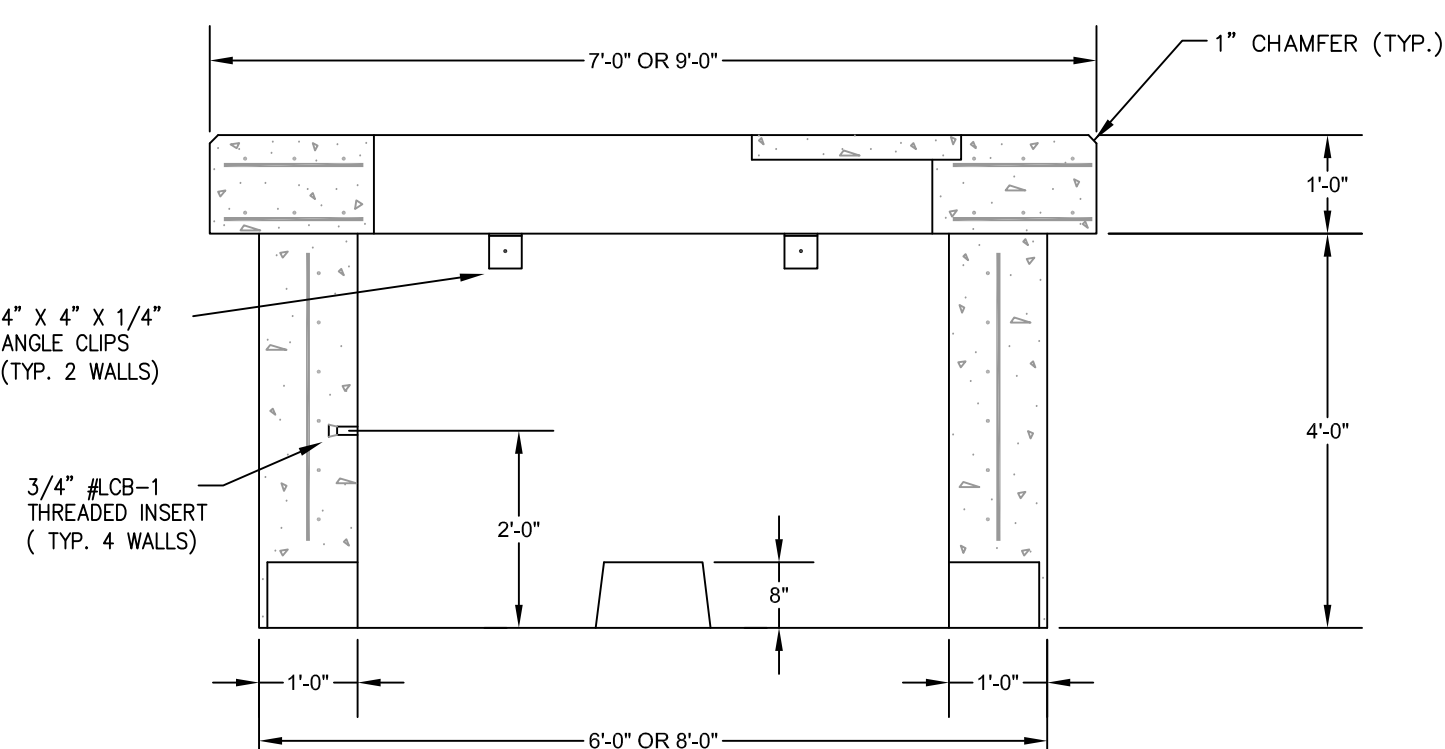
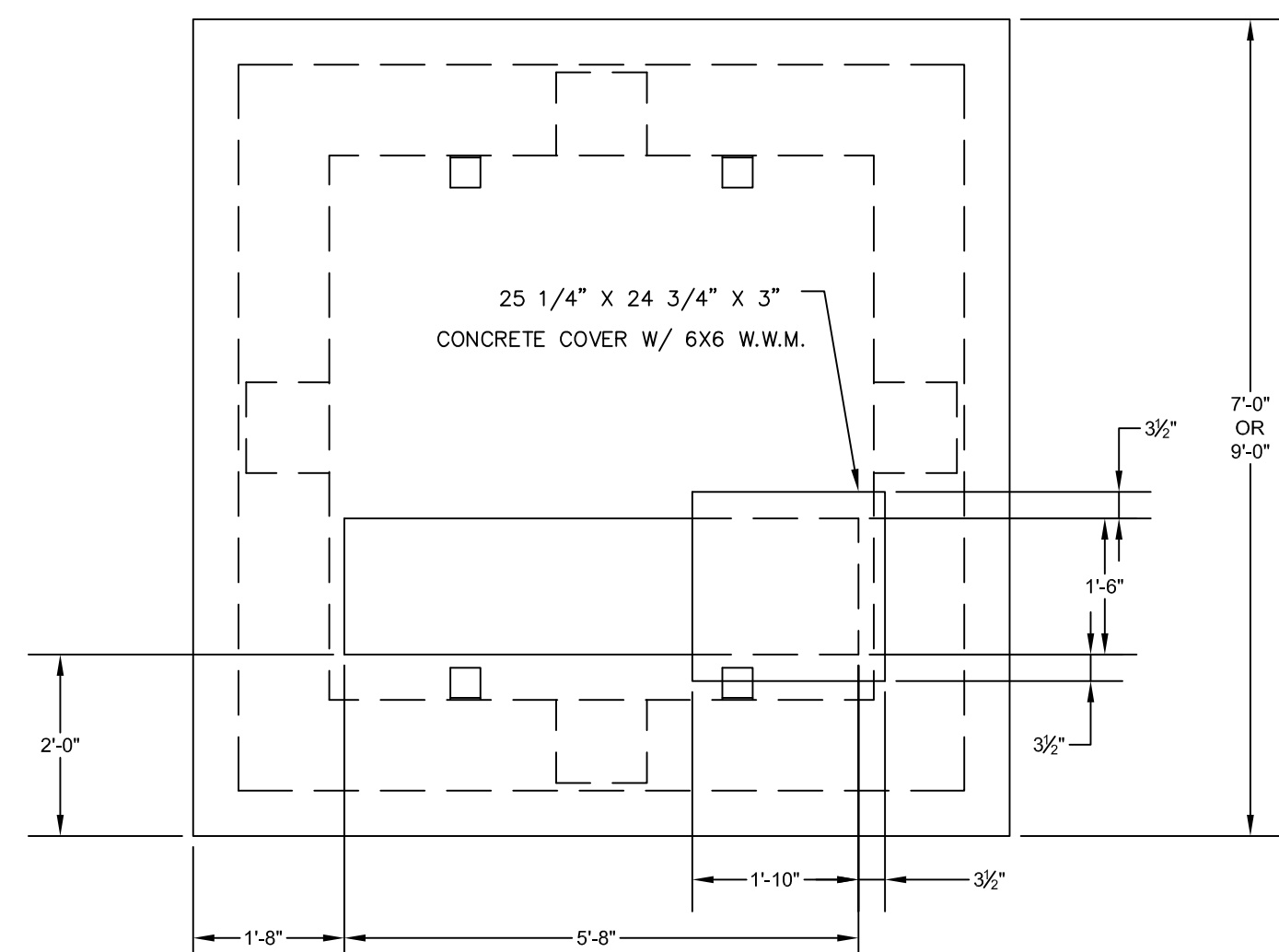


NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION.

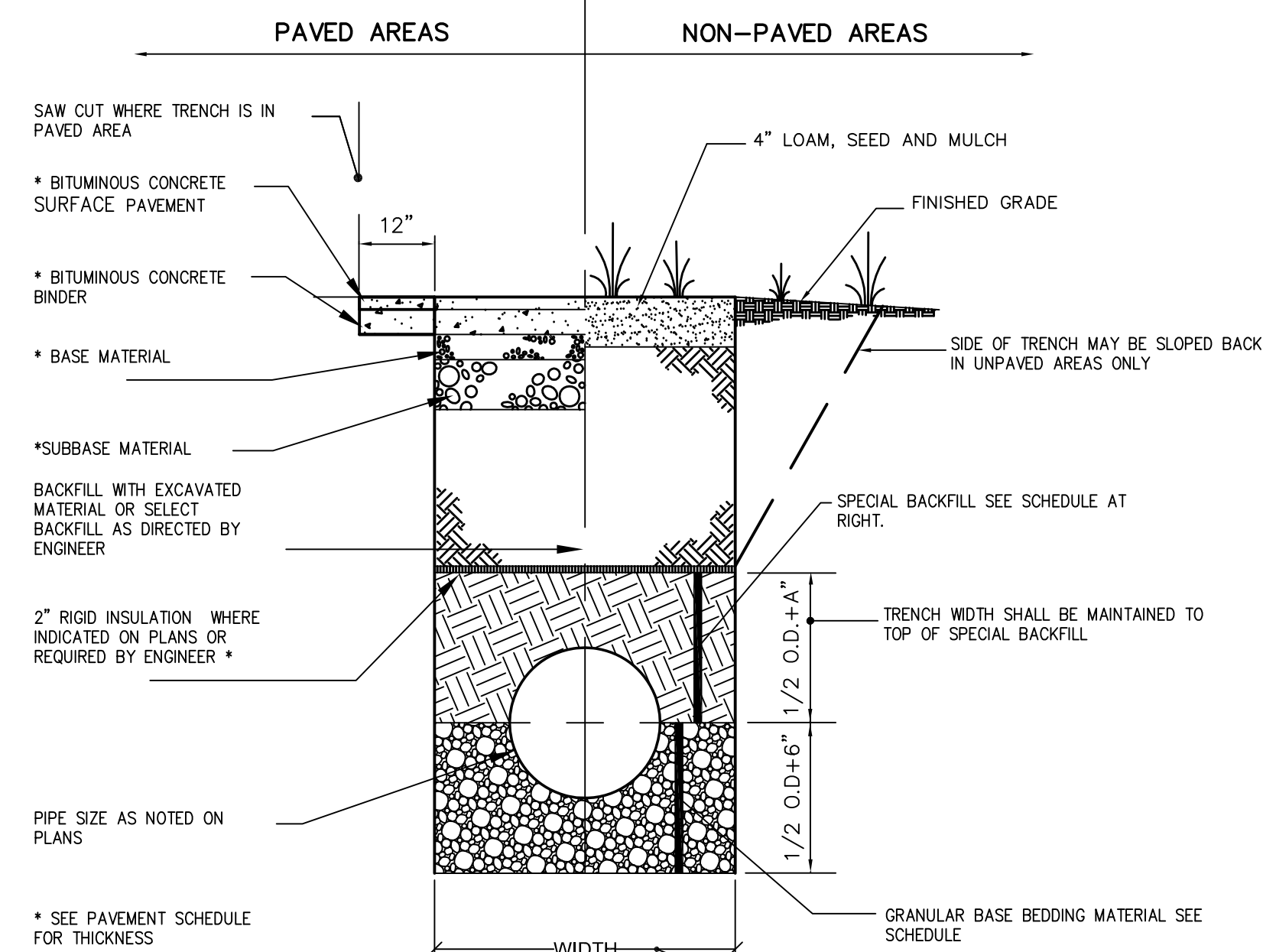
(A) WATER SERVICE
N.T.S.



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. CONTRACTOR SHALL CONFIRM SIZE REQUIREMENTS WITH THE OWNER AND ELECTRICIAN PRIOR TO ORDERING PAD.

(B) TRANSFORMER PAD
N.T.S.



SCHEDULE OF BASE BACKFILL FOR NON-SANITARY INSTALLATIONS

TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (N)	SELECT BACKFILL
CONCRETE	3/4" CRUSHED STONE	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
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

SCHEDULE OF BASE BACKFILL FOR SANITARY INSTALLATIONS

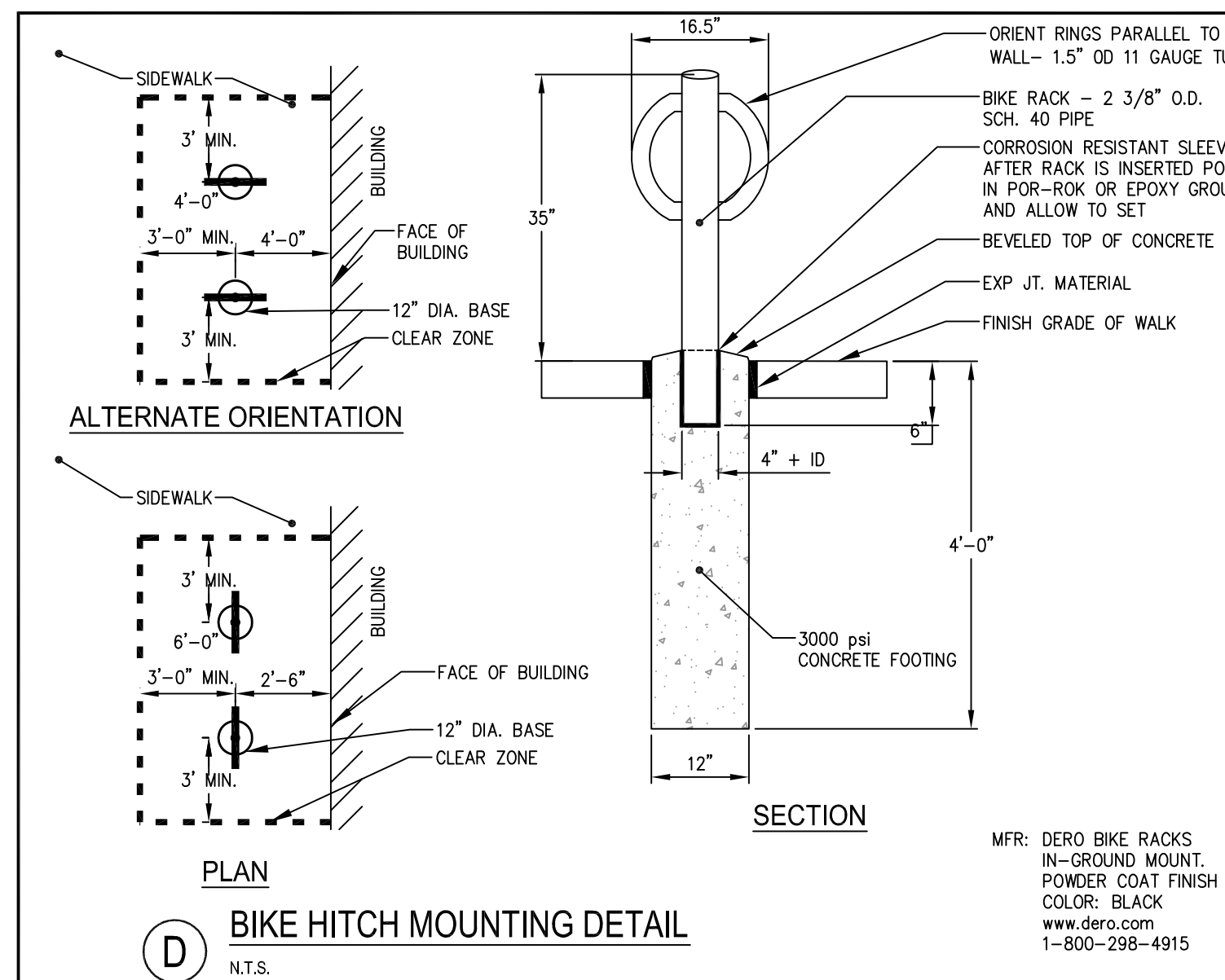
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (N)	SELECT BACKFILL
PVC PRESSURE	3/4" CRUSHED STONE	3/4" CRUSHED STONE	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
PVC GRAVITY	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
DUCTILE IRON	3/4" CRUSHED STONE	3/4" CRUSHED STONE	6	GRANULAR AASHTO M145-49 A-3 OR BETTER

PIPE SIZE 10" OR LESS	MAXIMUM WIDTH
12 TO 15	4'-0"
18	4'-6"
24	5'-0"
30	5'-6"
36	6'-0"
42	7'-3"
48	8'-0"

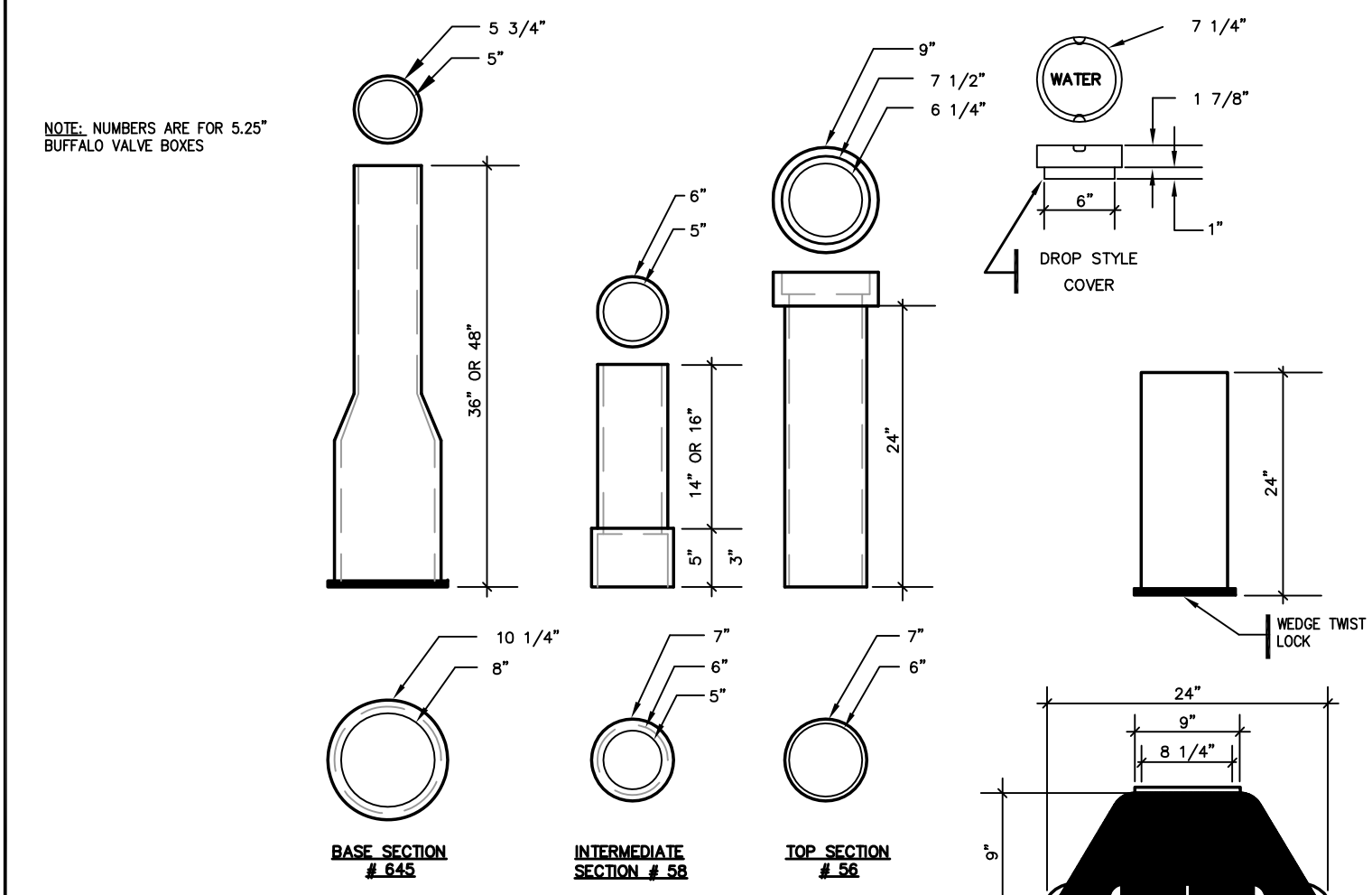
SHEETING, IF REQUIRED, SHALL BE CUT OFF 2'-0" BELOW FINISH GRADE.

(C) TYPICAL SEWER, WATER MAIN, & STORM DRAIN TRENCH SECTION
N.T.S.

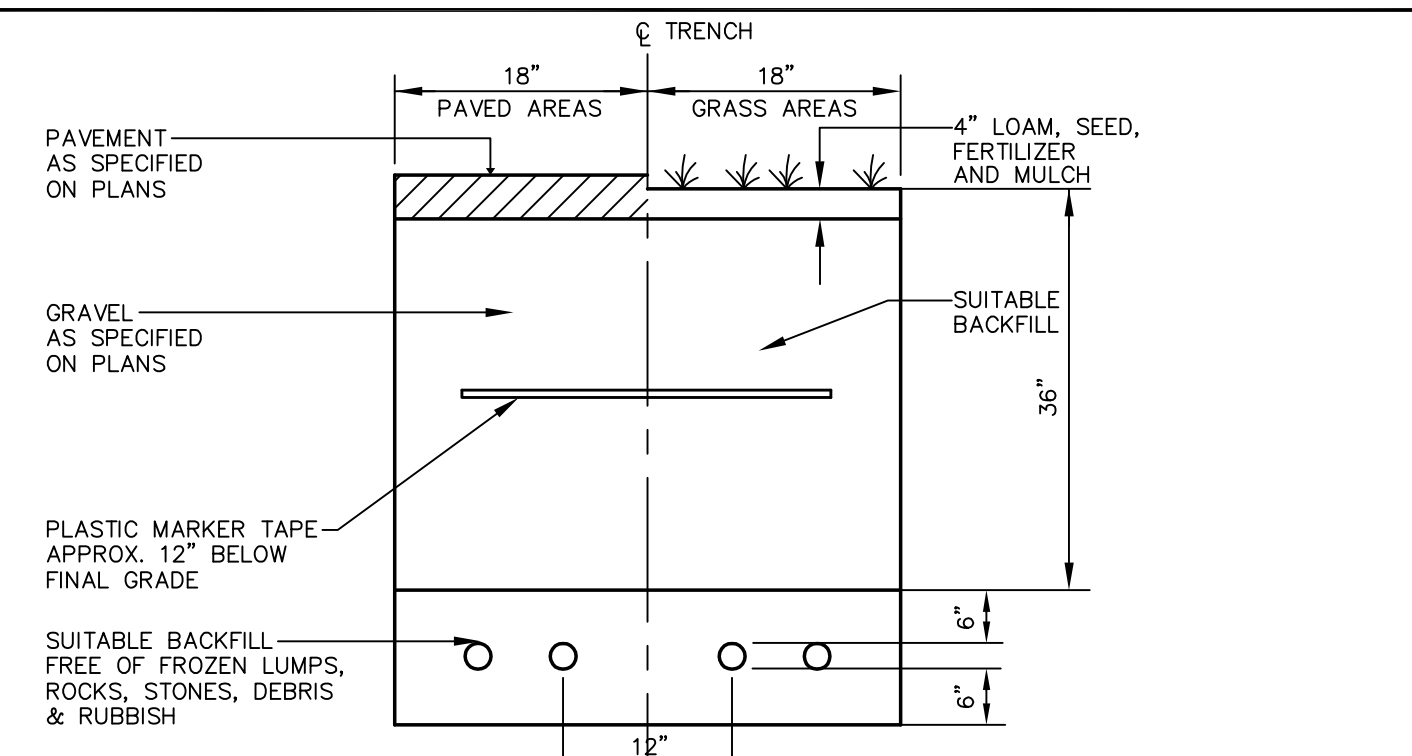
1. PROVIDE COMPACTED GRAVEL BASE AND BACKFILL WITH ADEQUATE DRAINAGE SYSTEM WITH POSITIVE PITCH.
2. PROVIDE CABLE OPENINGS AT BASE OF WELL AS NEEDED.
3. CONDUITS MUST HAVE END BELLS USED AT TERMINATION IN FOUNDATION.
4. LOCATION MUST BE ACCESSIBLE BY TRUCK AND PROTECTED FROM TRAFFIC DAMAGE AS REQUIRED BY CMP.
5. PROVIDE PULL ROPE FOR CMP-OWNED INSTALLATIONS.
6. PROVIDE 15' MINIMUM SLACK FOR EACH CABLE IN WELL.
7. TRANSFORMER MUST BE LOCATED AT LEAST 6' FROM ALL BUILDING WALLS AND 10' FROM ALL BUILDING OPENINGS.
8. CUSTOMER SHALL FURNISH AND INSTALL 8" X 8" GROUND ROD WITH A #4 STR. BARE CU. PIGTAIL.
9. 4" CONDUIT MIN. SIZE FOR 3-PHASE FACILITY.
10. PROVIDE CONDUIT AS REQUIRED BY CMP METER DEPT. FOR METERING.
11. NO METERING PEDESTAL MAY BE ATTACHED TO TRANSFORMER FOUNDATION.
12. FOUNDATION MAY BE SHORTENED TO MEET SOIL CONDITIONS.
13. SEALANT AROUND BASE OF COVER WILL NOT BE PERMITTED OR ACCEPTED.



(D) BIKE HITCH MOUNTING DETAIL
N.T.S.

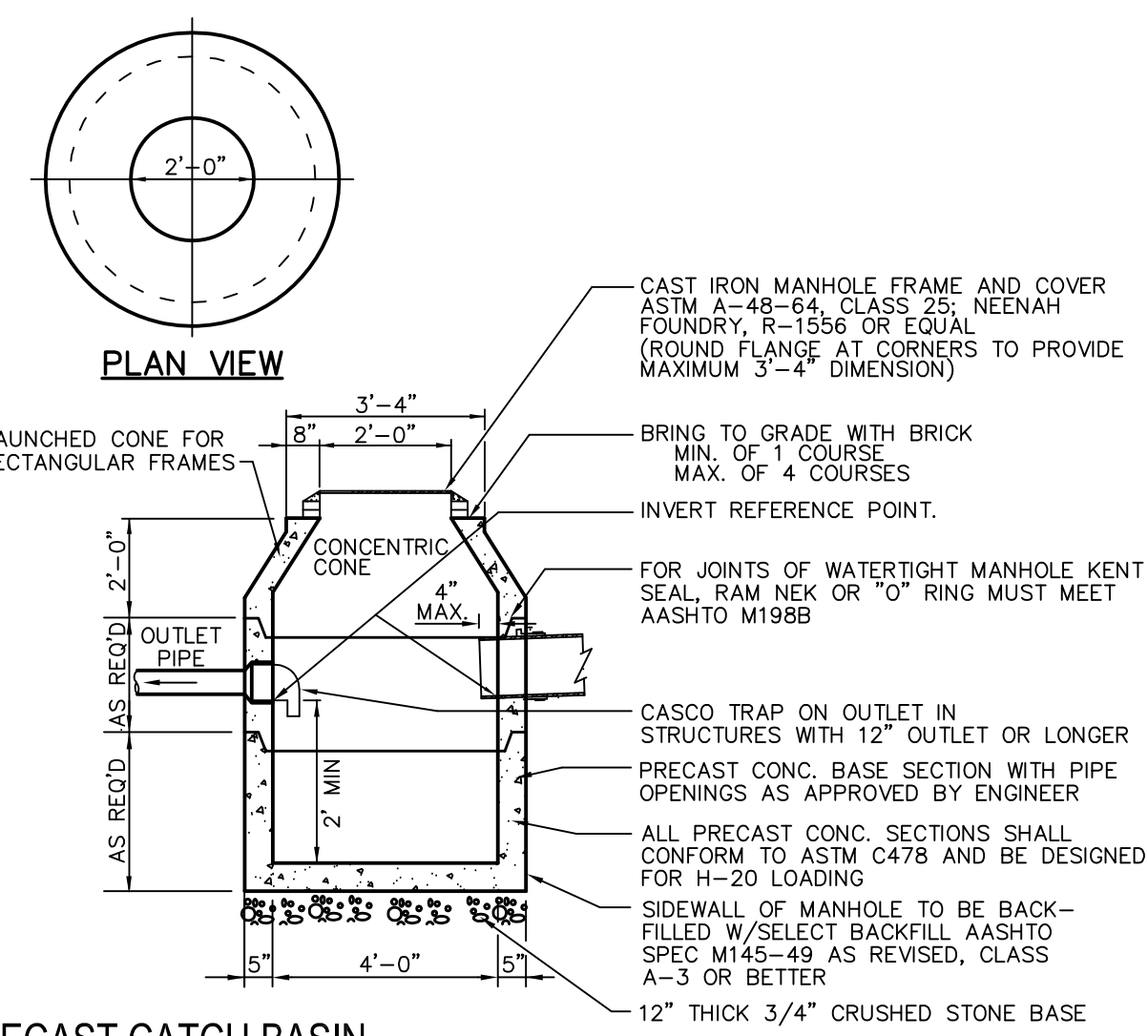


(E) TYPICAL VALVE BOXES
N.T.S.



CONDUIT TYPE	GRASS AREAS	PAVED AREAS	UTILITY
SCHEDULE 40 PVC	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL	POWER
ELECTRICAL GRADE	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL	TELEPHONE
SCHEDULE 40 PVC	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL	CABLE
SCHEDULE 40 PVC	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL	ASTM A120

(F) UTILITY TRENCH
N.T.S.



(G) PRECAST CATCH BASIN
N.T.S.

REV	DATE	DESCRIPTION
4	07.27.16	REVISED SUBMISSION TO CITY
3	12.09.15	RELEASED FOR CONSTRUCTION - FINAL PLANS TO CITY
2	07.17.15	REVISED SUBMISSION TO CITY
1	06.12.15	AMENDED SITE PLAN SUBMISSION

STATE OF MAINE
STEPHEN R. BUSHEY
No. 7928
LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN BUSHEY
LIC. #7429

PROJECT	UNIT 11 - IMMUCELL SECOND TEE CONDOMINIUM ASSOCIATION BUSINESS PARK EXPANSION
SHEET TITLE	UTILITY DETAILS
CLIENT	IMMUCELL CORP.

STANTEC CONSULTING SERVICES INC. 482 PAYNE ROAD SCARBOROUGH, ME 04074 WWW.STANTEC.COM	 DRAWN: DED DATE: MAY 2015 DESIGNED: SRB SCALE: AS NOTED CHECKED: SRB JOB NO. SP-M164/195350148 FILE NAME: SP-M168 DETAILS SHEET C-9
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