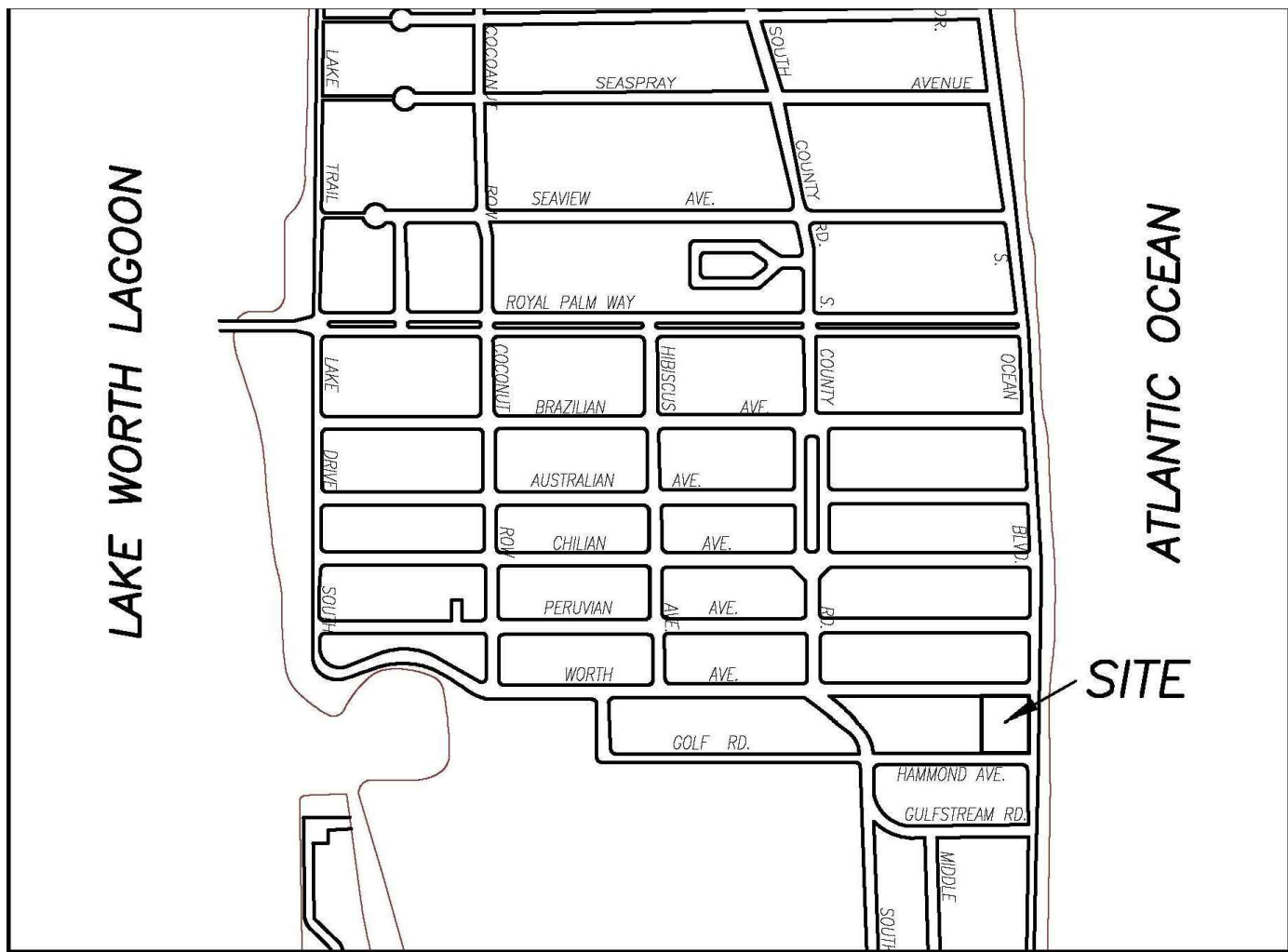
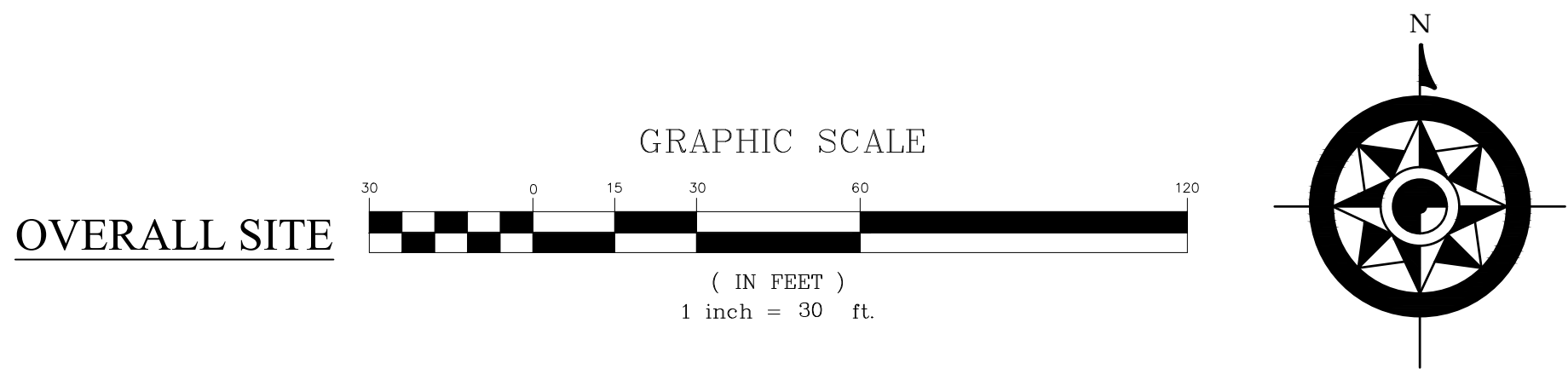
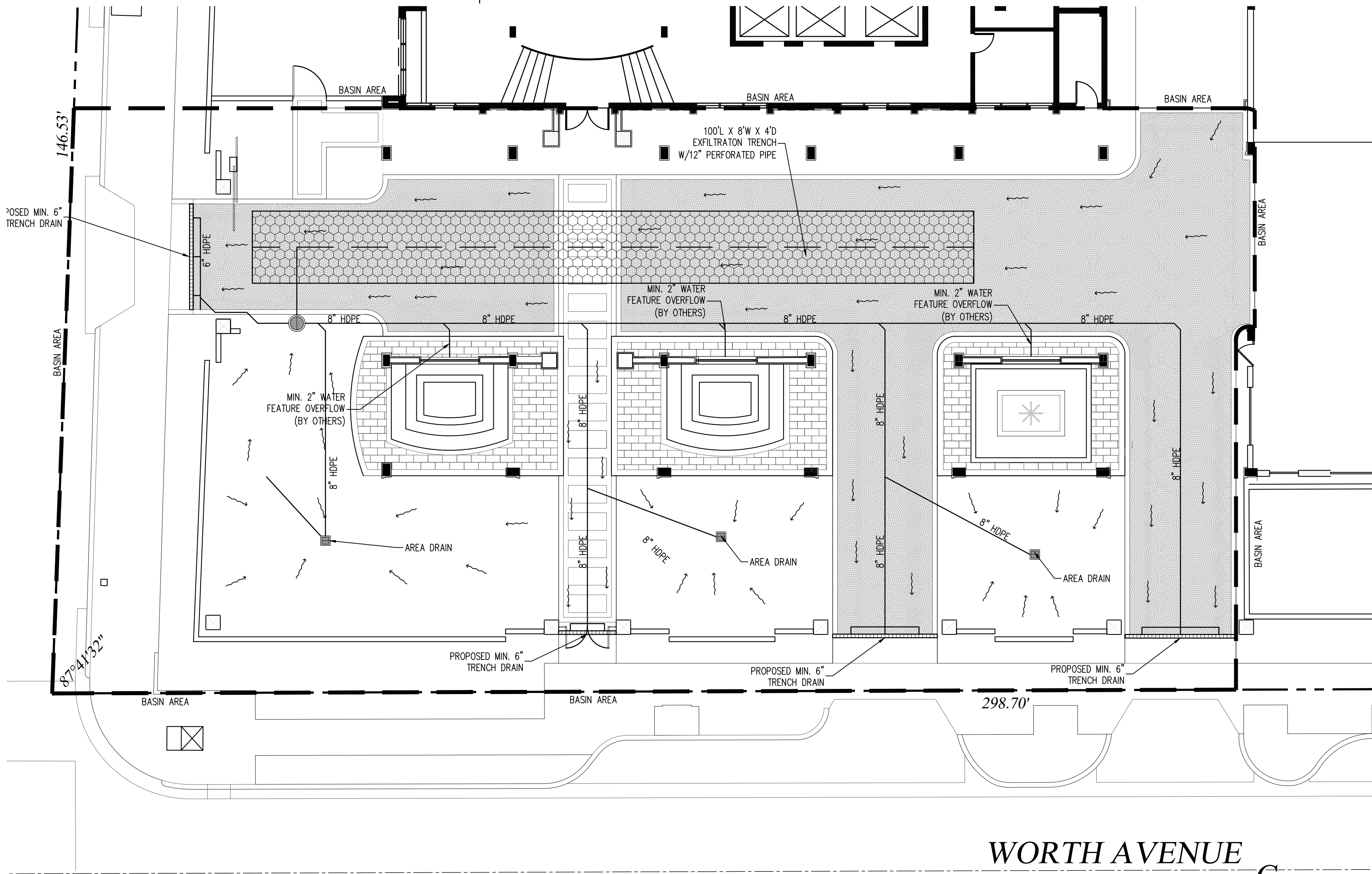
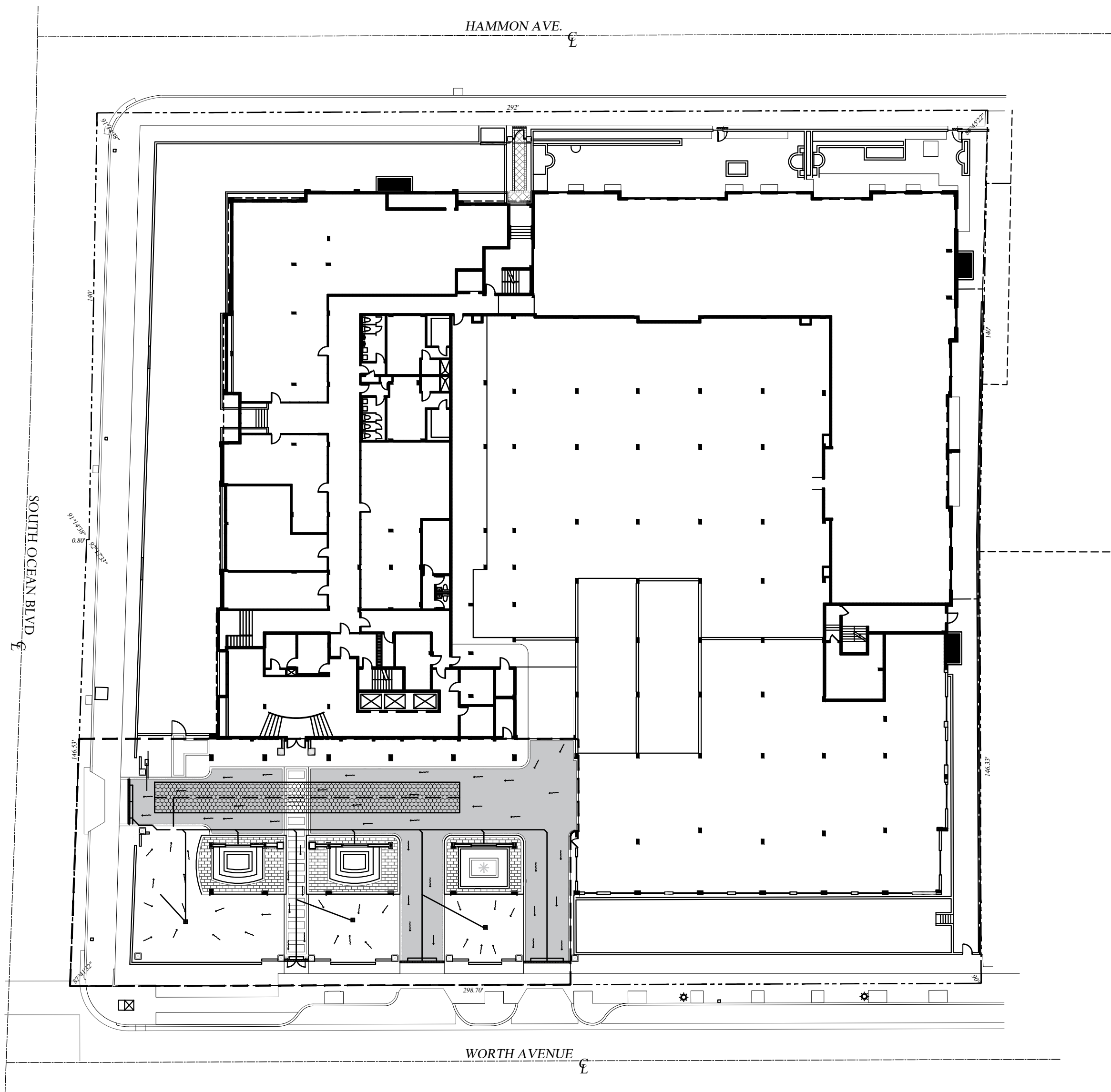


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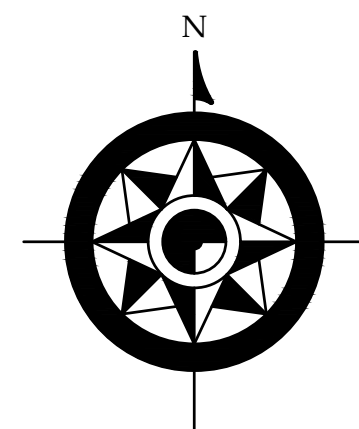
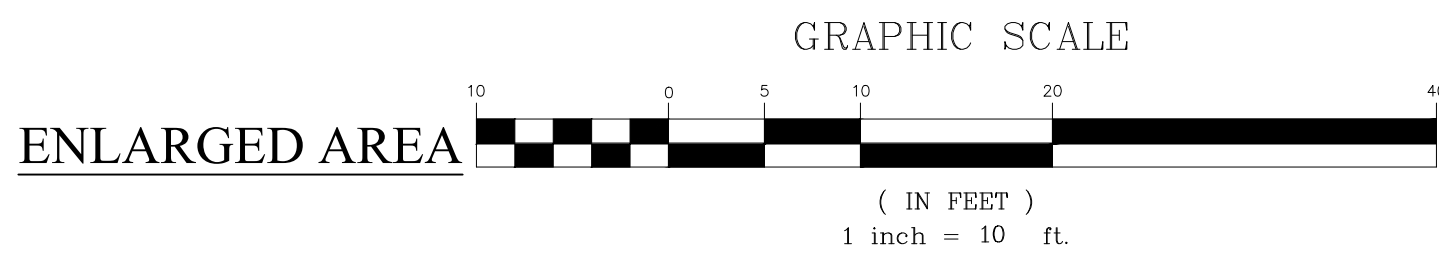
- NOTES:
1. ALL NEW DRAINAGE TO BE INSTALLED PER PLANS AND EXACT ELEVATIONS WILL BE FIELD DETERMINED PER FIELD CONDITIONS.
 2. ALL TRENCH DRAINS AT BOTTOM OF STEP LOCATIONS TO BE FLUSH AGAINST BACK OF STEP.
 3. EXFILTRATION TRENCHES TO BE UPDATED ONCE PERCOLATION TEST IS PERFORMED AND SIZED ACCORDINGLY.
 4. FURTHER COORDINATION WITH DOWNSPOUTS WILL BE ADDED AND TIED INTO THE PROPOSED DRAINAGE SYSTEM.



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- LEGEND
- EXISTING ELEVATION PER WALLACE SURVEYING (NAVD)
 - FLOW DIRECTION
 - EXFILTRATION TRENCH
 - AREA DRAIN W/STORM PIPING
 - 24" NYLOPLAST DRAIN BASIN WITH BAFFLE
 - PROPOSED FINISH GRADES



ZON# 23-061
ARCOM# A-23-074

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No:	Revisions:	Date:

DRAINAGE PLAN FOR:
WINTHROP HOUSE
100 WORTH AVE.
PALM BEACH, FL

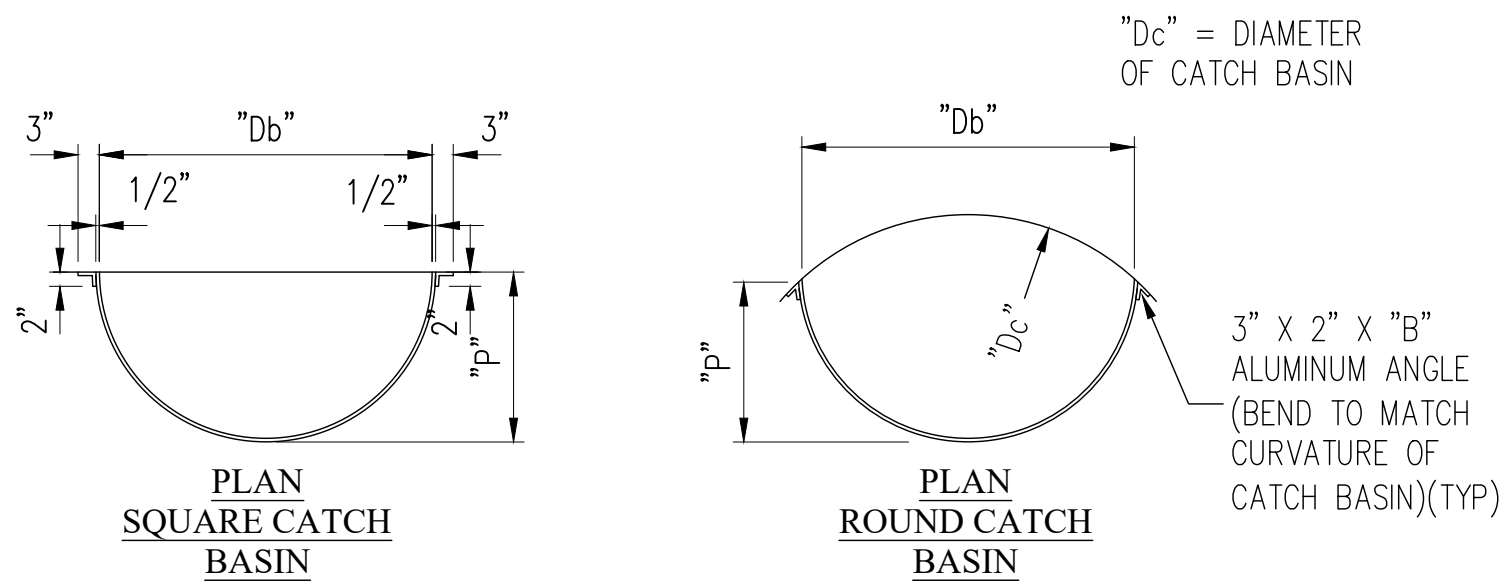
Project #:	23-066
Issue Date:	05/15/23
Drawn By:	AMW
Chkd By:	AMW
Scale:	As Shown

ANDRE M. WEBSTER
P.E.
No. 87358
STATE OF FLORIDA
Professional Engineer
SHEET TITLE

DRAINAGE &
GRADING PLAN

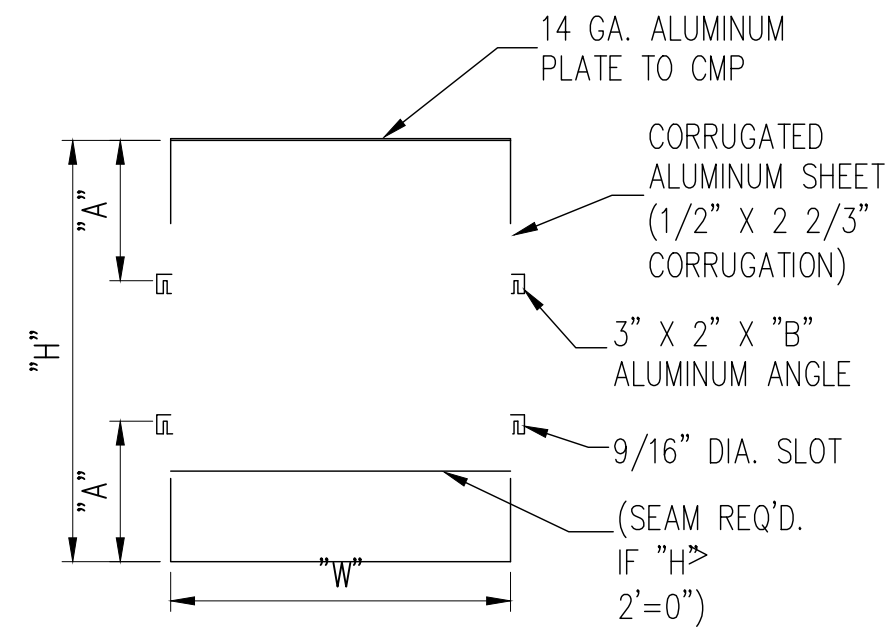
SHEET NUMBER:

C1



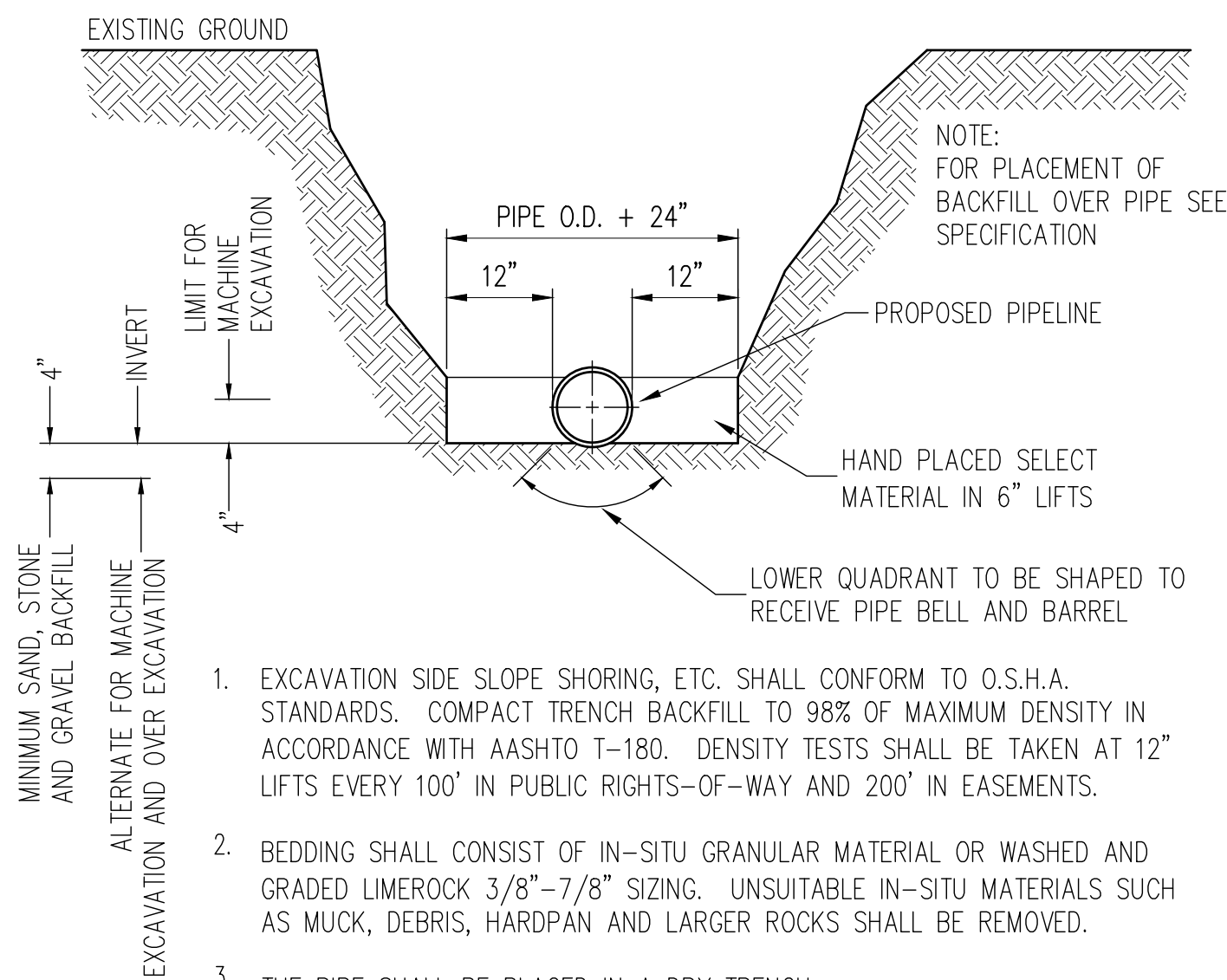
PIPE DIA.	BAFFLE DIA.	QUAGE	HEIGHT	WIDTH	DEPTH	EAR LENGTH	PERCENT OF PIPE AREA
12	24	16	33	31	12.5	8	65.3
15	24	16	33	31	12.5	8	65.3
18	24	16	33	31	12.5	8	65.3
21	24	16	33	31	12.5	8	65.3
24	30	16	36	37	15.5	9	78.1
27	36	16	39	43	18.5	10	88.9
30	36	16	42	43	18.5	11	72.0
36	42	16	48	49	21.5	12	68.1
42	48	16	54	55	24.5	14	65.3
48	54	14	60	61	27.5	15	63.3
54	60	14	66	67	30.5	17	61.7
60	66	14	72	73	33.5	18	60.5
66	72	14	78	79	36.5	20	59.5
72	84	14	84	91	42.5	21	68.1

NOTE: ALL DIMENSIONS ARE IN INCHES. CONTRACTOR TO CONFIRM THAT BAFFLE WILL FIT STRUCTURE I.D.



BAFFLE DETAIL

N.T.S.

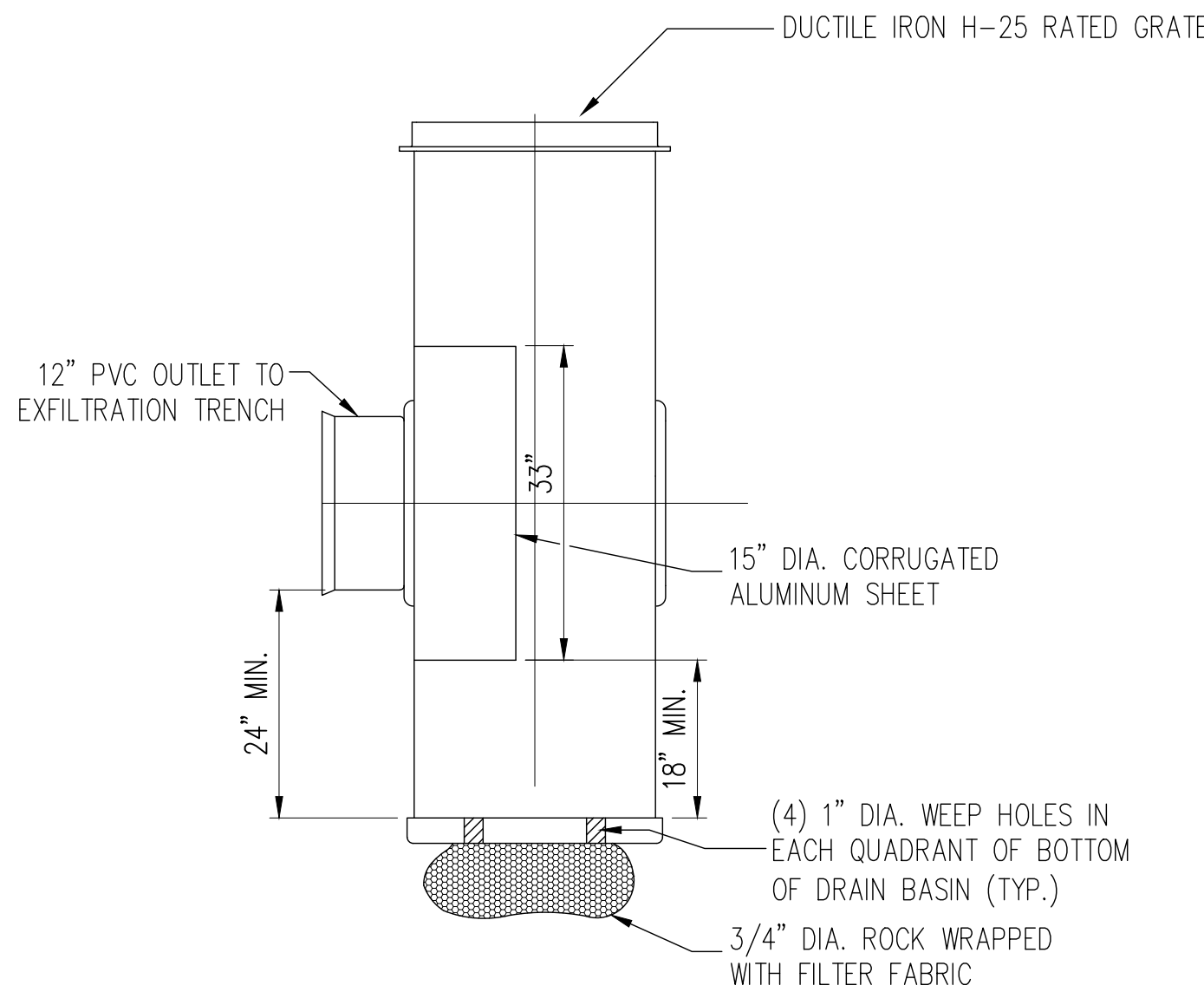


- EXCAVATION SIDE SLOPE SHORING, ETC. SHALL CONFORM TO O.S.H.A. STANDARDS. COMPACT TRENCH BACKFILL TO 98% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-180. DENSITY TESTS SHALL BE TAKEN AT 12" LIFTS EVERY 100' IN PUBLIC RIGHTS-OF-WAY AND 200' IN EASEMENTS.
- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8"-7/8" SIZING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS, HARDPAN AND LARGER ROCKS SHALL BE REMOVED.
- THE PIPE SHALL BE PLACED IN A DRY TRENCH.
- BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, HARDPAN AND DEBRIS.
- SEE SEPARATE DETAIL FOR "PIPE INSTALLATION UNDER EXISTING PAVEMENT-OPEN CUT.
- THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT/CONTRACT DOCUMENTS.

TRENCH AND BACKFILL DETAIL

N.T.S.

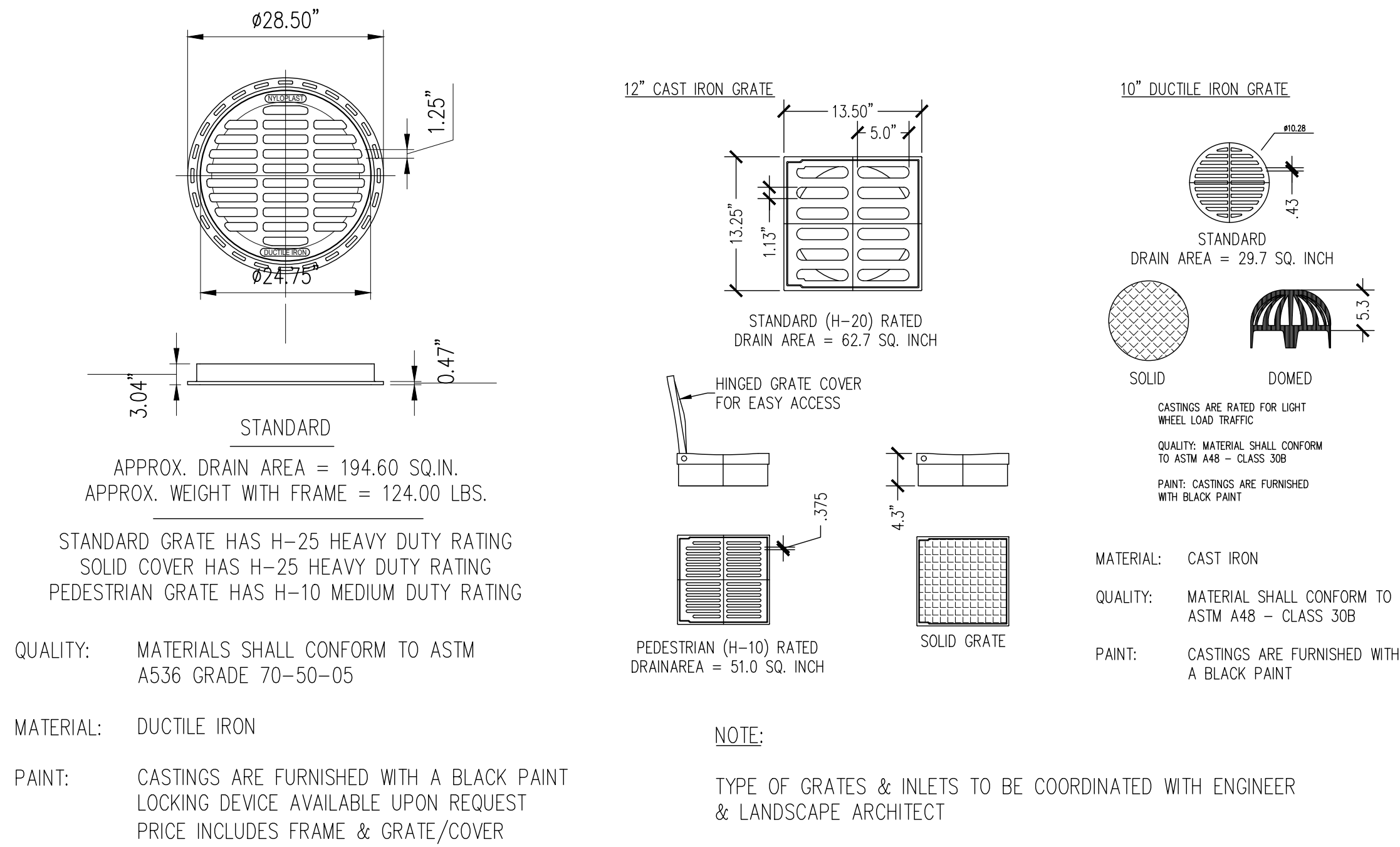
24" NYLOPLAST DRAIN BASIN



NOTE:

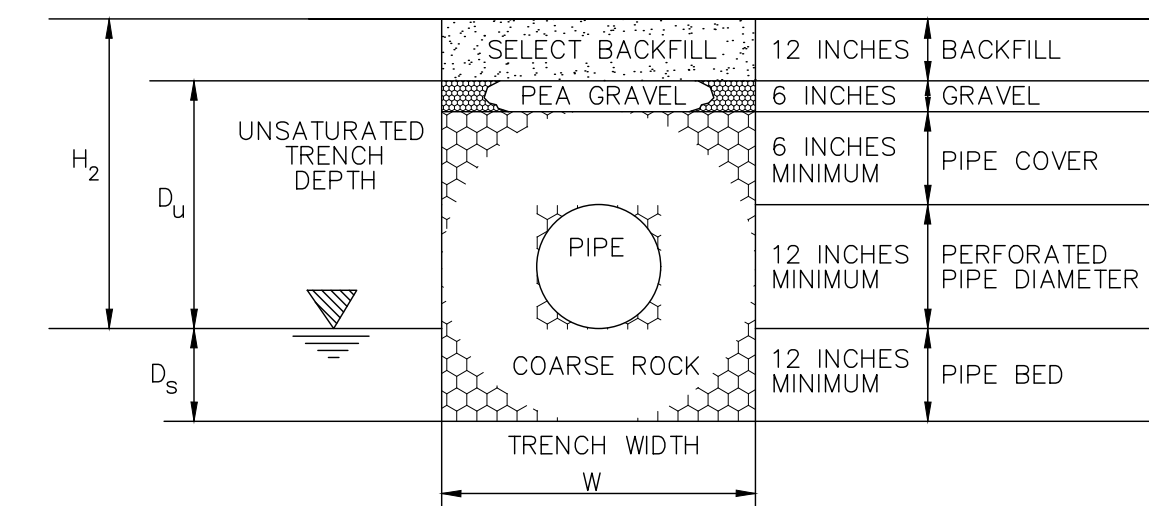
INLET TO HAVE MIN. 24" SUMP AND MIN. 18" CLEARANCE BETWEEN BOTTOM OF BAFFLE AND BOTTOM OF INLET

24" DUCTILE IRON GRATE



AREA DRAIN DETAIL

TYPICAL EXFILTRATION TRENCH



$$L = \frac{V}{K(H_2W + 2H_2D_u - D_u^2 + 2H_2D_s) + (1.39 \times 10^{-4})WD_u}$$

L = LENGTH OF TRENCH REQUIRED (FEET)
V = VOLUME TREATED (ACRE-INCHES)
W = TRENCH WIDTH (FEET)
K = HYDRAULIC CONDUCTIVITY (CFS/FT.² - FT.HEAD)
H₂ = DEPTH TO WATER TABLE (FEET)
D_u = NON-SATURATED TRENCH DEPTH (FEET)
D_s = SATURATED TRENCH DEPTH (FEET)

WINTHROP HOUSE
100 WORTH AVE.
PALM BEACH, FLORIDA

STORMWATER MANAGEMENT CALCULATIONS

SITE PLAN DATA

Total Basin Area = 13,277 sq.ft. ±

Impervious Area = 8,630 sq.ft. ±

Pervious Area = 4,647 sq.ft. ±

ESTIMATED RUNOFF VOLUME

Impervious Runoff Volume:
2" x 8,630 sq.ft. x 1 ft./12 in. = 1,438 cu.ft.

Pervious Runoff Volume:
0.4" x 4,647 sq.ft. x 1 ft./12 in. = 155 cu.ft.

Total Basin Volume to be Retained = 1,593 cu.ft.

EXFILTRATION TRENCH CALCULATIONS (SFWM ANALYSIS)

Exfiltration Trench
L = Total Length of Trench Provided = 100 ft
W = Trench Width = 8.00 ft
K = Hydraulic Conductivity = 0.00005 cfs/sq.ft. per ft. of head
H₂ = Depth to Water Table = 4.00 ft
D_u = Non-Saturated Trench Depth = 4.00 ft
D_s = Saturated Trench Depth = 0.00 ft
V = Volume Treated = 2486 cu.ft.

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ANDRE M. WEBSTER
P.E.
No. 87358
STATE OF FLORIDA
Professional Engineer License

SHEET TITLE
DRAINAGE & GRADING DETAILS

SHEET NUMBER:
C2

ZON# 23-061
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