

REQUIRED RETENTION VOLUME

VOLUME REQUIRED = (P/12)*A*C
C_{dr}=0.90
P=2.20 (NOAA ATLAS 14)

100-YR VOLUME CALCULATIONS AND UNDERGROUND RETENTION SYSTEM TABLE (STORMTECH MC-4500)							
AREA	P	A	C	CHAMBERS	CAPS	V _{REQ}	V _{ALLOWED}
1	2.20	72506	0.90	69	6	11963.5	12146.1

SYMBOLS LEGEND

—1440— FINISHED GROUND CONTOUR
- -1440- - EXISTING GROUND CONTOUR
⊕ PROPOSED FIRE HYDRANT
— PROPERTY LINE
— ROAD CENTERLINE
— W — EX WATER LINE
— S — EX SEWER LINE
— G — EX GAS LINE
— E — EX ELECTRIC LINE
— U.T. — EX TELECOM LINE
— W — PROP WATER LINE
— S — PROP SEWER LINE
→ DRAINAGE DIRECTION

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FEMA FLOOD INSURANCE RATE MAP

ZONE X (DOT-HATCHED)
MAP PANEL# 04013C2265M
REVISION DATE: NOVEMBER 04, 2015

BENCHMARK

NAIL WITH TAG CITY OF MESA ON THE TOP OF CURB AT
THE NORTHWEST CORNER OF S. DOBSON RD. & W.
BROADWAY RD.
ELEVATION= 1211.80'

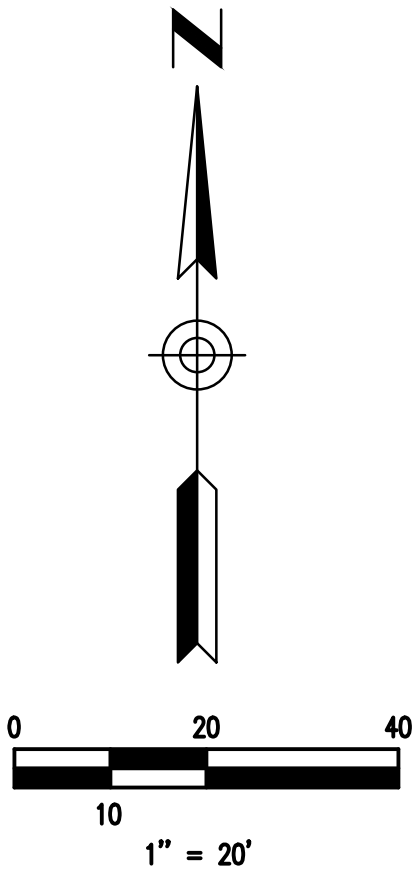
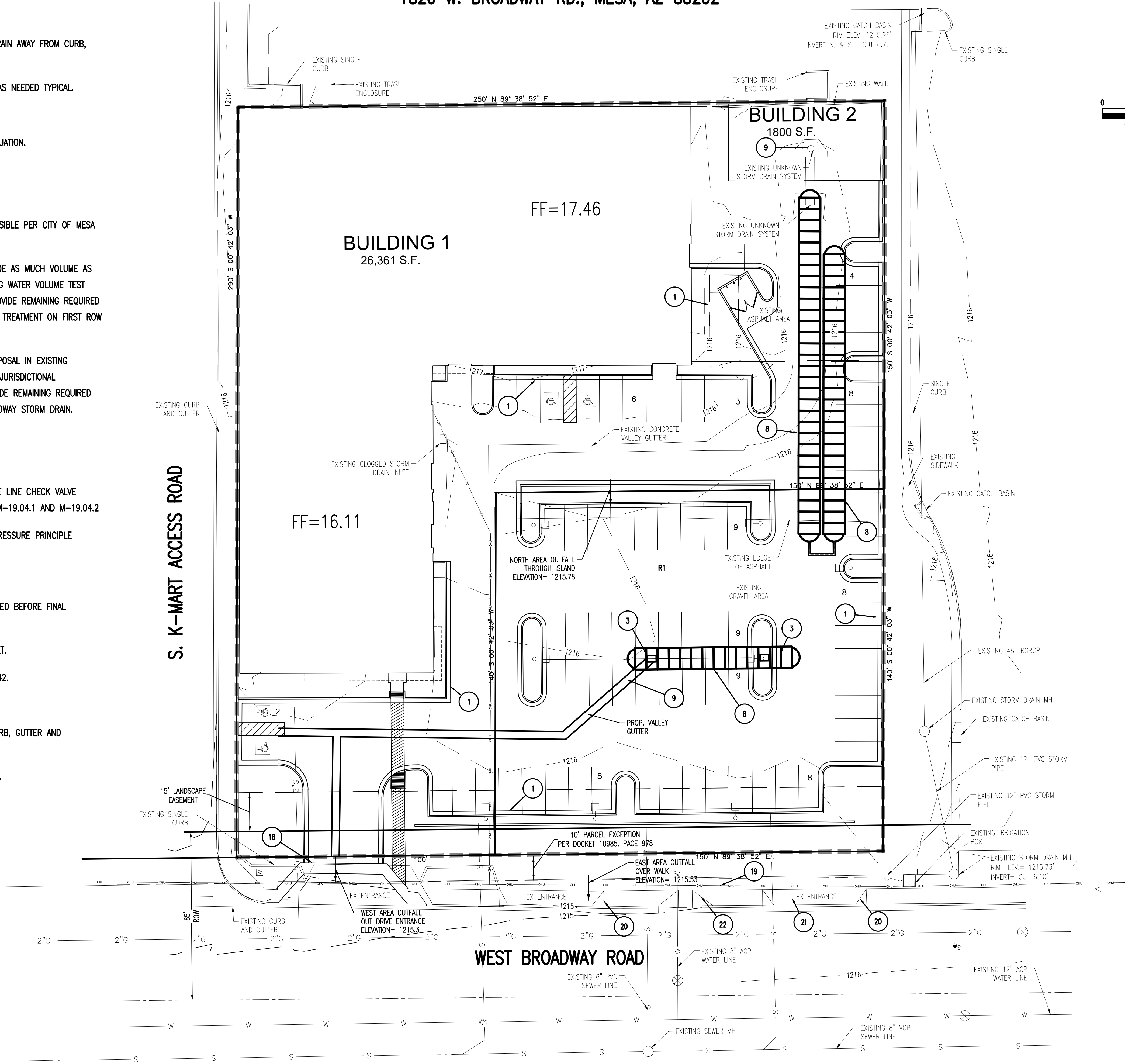
CONSTRUCTION NOTES

- 1 CURB AND GUTTER MAG 220A STANDARD OR MODIFIED TO DRAIN AWAY FROM CURB, TYPICAL ALL CURBS
- 2 DOUBLE GUTTER SURFACE DRAIN THROUGH PARKING ISLAND AS NEEDED TYPICAL.
- 3 STORM DRAIN INLET MAG 534 OR 535
- 4 CONNECT TO ROOF DRAIN. SEE ARCHITECT PLAN FOR CONTINUATION.
- 5 ROOF DRAIN LEADER TO MATCH ROOF DRAIN SIZE.
- 6 CONNECT LEADER TO PROPOSED RETENTION SYSTEM.
- 7 ON-PARKING RETENTION. PROVIDE AS MUCH VOLUME AS POSSIBLE PER CITY OF MESA STANDARDS ON PARKING LOT.
- 8 UNDERGROUND RETENTION. A. AT OWNER DISCRETION PROVIDE AS MUCH VOLUME AS POSSIBLE IN EXISTING SYSTEM BY CLEANING AND PERFORMING WATER VOLUME TEST (UP TO 100 000 GALLONS) BEFORE PLAN APPROVAL. B. PROVIDE REMAINING REQUIRED VOLUME IN STORMTECH CHAMBERS MC-4500 WITH ISOLATION TREATMENT ON FIRST ROW OF EACH SYSTEM.
- 9 RETENTION DISPOSAL. A. AT OWNER DISCRETION PROVIDE DISPOSAL IN EXISTING DRYWELL BY TESTING RATE TO DRAIN IN HALF (18 HRS) OF JURISDICTIONAL REQUIRED TIME (36 HRS) BEFORE PLAN APPROVAL. B. PROVIDE REMAINING REQUIRED DISPOSAL RATE USING PUMP AND BLEED-OFF LINE TO BROADWAY STORM DRAIN.
- 11 8" DUCTILE IRON WATER
- 12 FIRE HYDRANT MAG 360
- 13 BUILDING FIRE SPRINKLER LINE PER COM M-31.07 WITH FIRE LINE CHECK VALVE ASSEMBLY PER COM M-31.02. TRENCH BACKFILL PER COM M-19.04.1 AND M-19.04.2
- 14 2" DOMESTIC WATER METER (IN EASEMENT) AND REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (OUTSIDE EASEMENT)
- 15 2 1/2" DOMESTIC WATER SERVICE LINE
- 16 CONNECT TO EXISTING SEWER STUB. INVERT TO BE DETERMINED BEFORE FINAL PERMIT. APPROXIMATE INVERT = 1425.94
- 17 6" SEWER @ 1.18% SLOPE WITH CLEANOUTS EVERY 100 FEET.
- 18 EXISTING MAIN ACCESS DRIVEWAY TO BE REPLACED WITH M-42.
- 19 OVERHEAD ELECTRIC TO BE CONVERTED TO UNDERGROUND.
- 20 EXISTING DRIVEWAY TO BE REMOVED AND REPLACED WITH CURB, GUTTER AND SIDEWALK.
- 21 EXISTING SIDEWALK TO BE REPLACED WITH 6' WIDE SIDEWALK.
- 22 REMOVE EXISTING ADA RAMP.

BEEMER HAUS

PRELIMINARY GRADING AND DRAINAGE PLAN

1820 W. BROADWAY RD., MESA, AZ 85202



NPS MARICOPA, INC.

PRELIMINARY GRADING AND DRAINAGE PLAN

PROJECT:

811

NOT FOR CONSTRUCTION OR RECORDING

JOB NO. 18105

DRAWN BY: AKS

SHEET GD01

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