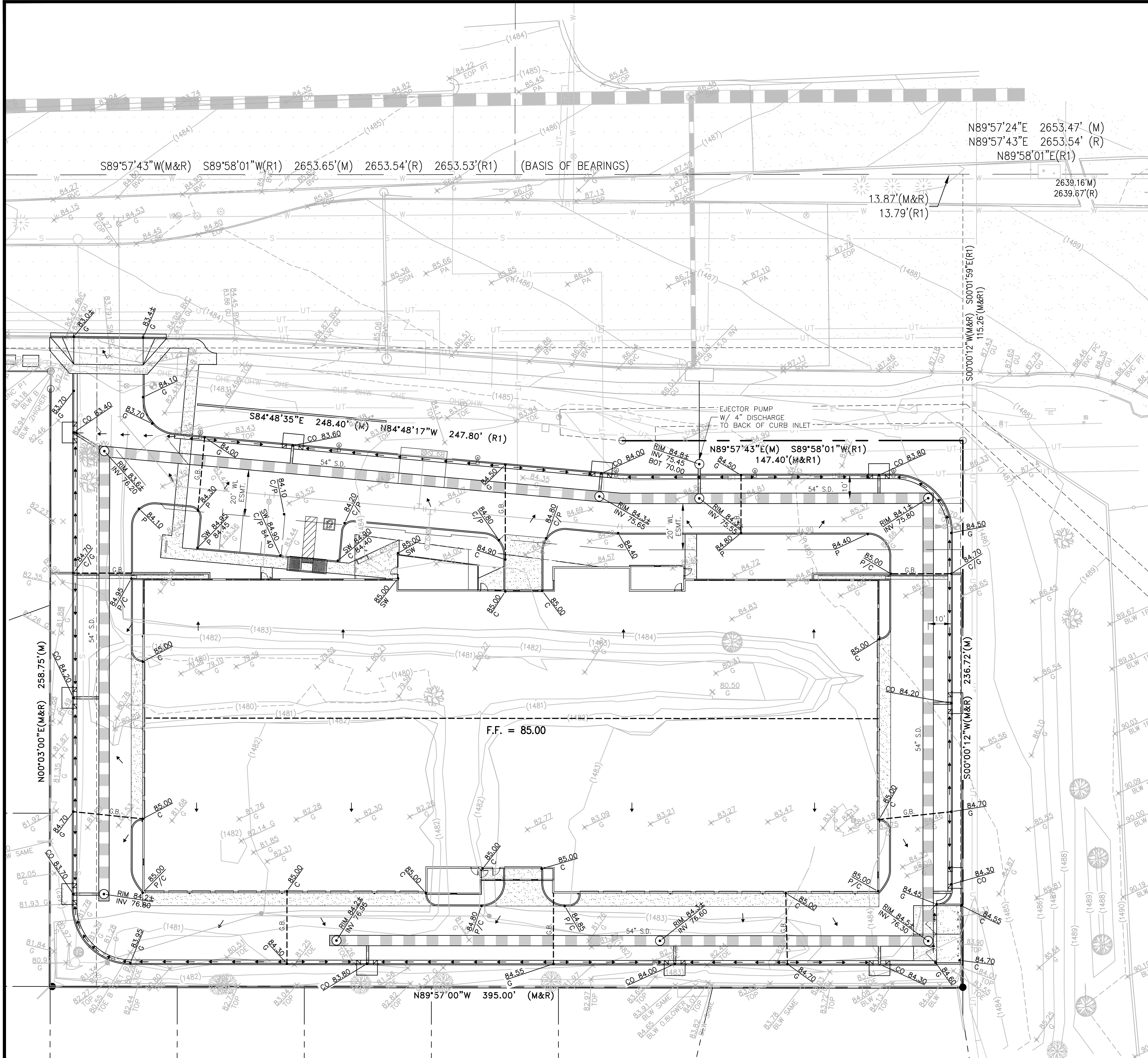


Plot Date/Time: 2/2/2018 7:34 AM
Full File Path: \\Server\\Drafter\\draft\\Users\\cadd\\17-061 Broadway 202 Mini Storage\\17-061.dwg
Layout Name: C&D



LEGEND

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT APPEAR ON EACH SHEET.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING STORM DRAIN	BC	BACK OF CURB
	NEW STORM DRAIN	BW	BACK OF WALK
	CENTERLINE	CATV	CABLE TV
	PROPERTY LINE	C	CONCRETE
	EXISTING LINE	CB	CATCH BASIN
	EXISTING MANHOLES, VAULTS AND BOXES	CC	CANOPY CLEARANCE
	EXISTING ELEVATION	CL	CENTERLINE
	BACKFLOW PREVENTER	CO	CURB OPENING
	CATCH BASIN	DWV	DRAIN, WASTE AND VENT
	CLEANOUT	E	ELECTRIC
	FIRE HYDRANT	ESMT	EASEMENT
	FLOW ARROW	FC	FACE OF CURB
	ROOF DRAIN ARROW	FG	FINISH GRADE
	FLOWLINE ARROW	FF	FINISH FLOOR
	FOUND BRASS CAP	FL	FLOW LINE
	FOUND MONUMENT	FM	FORCE MAIN
	FOUND REBAR	FO	FIBER OPTICS
	LIGHT POLE	FW	FACE OF WALK
	PROPOSED ELEVATION	G	GUTTER
	POWER POLE	GB	GRADE BREAK
	SET BRASS CAP	GR	GRATE
	SET MONUMENT	INV	INVERT
	SET REBAR	IRR	IRRIG. CONTROL VALVE
	SIGN	ML	MONUMENT LINE
	TAPPING SLEEVE	NG	NATURAL GRADE
	WATER VALVE	OHE	OVERHEAD ELECTRIC
	WATER METER	P	PAVEMENT
	DRYWELL	PC	POINT OF CURVE
		PT	POINT OF TANGENCY
		RD	ROOF DRAIN
		ROW	RIGHT OF WAY
		SCO	SEWER CLEANOUT
		SD	STORM DRAIN
		SL	STREET LIGHT
		SS	SANITARY SEWER
		SW	SIDEWALK
		T	TELEPHONE
		TC	TOP OF CURB
		TF	TOP OF FOOTING
		TW	TOP OF WALL
		TS	TRAFFIC SIGNAL
		UGE	UNDERGROUND ELEC
		VG	VALLEY GUTTER
		W	WATER
		WLE	WATER LINE EASEMENT
	NEW CONCRETE		
	NEW RIP-RAP		
	EXISTING CONCRETE		
	EXISTING BRICK		

RETENTION CALCULATIONS

100-YEAR, 2-HOUR EVENT

$$V_{REQ} = \frac{(C)(P)(A)}{12}$$

C = 0.9
P = 2.2"
A = 96,158 S.F.

$$V_{REQ} = 15,866 \text{ C.F.}$$

VOLUME PROVIDED IN 1,000 L.F. 54" DIAMETER PIPE:

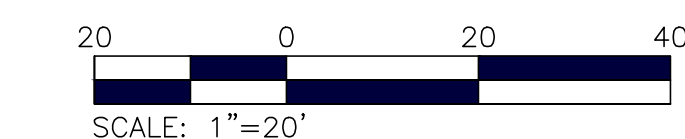
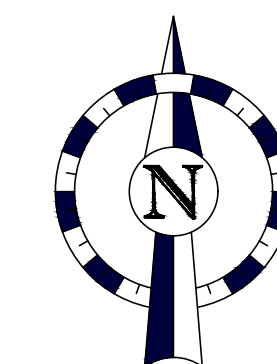
$$V_{PROV} = (\pi)(R^2)(L)$$

R = 2.25'
L = 1,000'

$$V_{PROV} = 15,904 \text{ C.F.}$$

DRY-UP CALCULATION
(BASED ON 0.15-CFS DISCHARGE RATE)

$$\begin{aligned} \text{TIME} &= \frac{15,866}{(0.15 \text{ CFS})(3600)} \\ &= 29.4 \text{ HRS} \end{aligned}$$



ABBREVIATIONS

BC	BACK OF CURB
BW	BACK OF WALK
CATV	CABLE TV
C	CONCRETE
CB	CATCH BASIN
CC	CANOPY CLEARANCE
CL	CENTERLINE
CO	CURB OPENING
DWV	DRAIN, WASTE AND VENT
E	ELECTRIC
ESMT	EASEMENT
FC	FACE OF CURB
FG	FINISH GRADE
FF	FINISH FLOOR
FL	FLOW LINE
FM	FORCE MAIN
FO	FIBER OPTICS
FW	FACE OF WALK
G	GUTTER
GB	GRADE BREAK
GR	GRATE
INV	INVERT
IRR	IRRIG. CONTROL VALVE
ML	MONUMENT LINE
NG	NATURAL GRADE
OHE	OVERHEAD ELECTRIC
P	PAVEMENT
PC	POINT OF CURVE
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RD	ROOF DRAIN
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SW	SIDEWALK
T	TELEPHONE
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TF	TOP OF FOOTING
TW	TOP OF WALL
TS	TRAFFIC SIGNAL
UGE	UNDERGROUND ELEC
VG	VALLEY GUTTER
W	WATER
WLE	WATER LINE EASEMENT

PROJECT BROADWAY SELF-STORAGE		LOCATION MESA, ARIZONA	
DRAWN BY JB	DESIGNED BY KZ	REVIEWED BY KZ	DATE 2017
TITLE CONCEPTUAL GRADING & DRAINAGE PLAN		SITE ADDRESS SWC OF BROADWAY RD & LOOP 202	
SCALE: 1:20		JOB NO.: 17-061	
SHEET 2 OF 2			

3400 N. Desert Road
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Fax: 602-944-2501

Professional Engineer
Kenneth W. Zell
No. 24449
Arizona, U.S.A.
Expires 12-31-19

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Call at least two full working days before you begin excavation.
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