

PREPARED FOR:
CAR WASH
 PRO DESIGNERS
 600 Business Highway
 Park Ridge, IL 60068
 PH: 847/698-4400
 FAX: 847/698-9401

PREPARED BY:
TERRA
 CONSULTING GROUP
 600 Business Highway
 Park Ridge, IL 60068
 PH: 847/698-4400
 FAX: 847/698-9401

REVISIONS AND REVISIONS

NO.	DESCRIPTION	DATE
1	V.L.L. PRELIM. REV. #1	04/14/20
2	V.L.L. PRELIM. REV. #2	11/16/20

PRELIMINARY ENGINEERING

FOR

CAR WASH FACILITY
 1492 W. OGDEN AVE.
 NAPERVILLE, IL 60540

DESIGNED BY: M.S.L.
 DRAWN BY: K.S.J.L.
 DATE: 08/08/2023
 PROJECT #: 1621

GRADING PLAN

SHEET NUMBER
C-5

EXISTING DETENTION BASIN

EXISTING DETENTION VOLUME = 5.33 AC-FT
 TRIBUTARY AREA = 16.92 AC
 PROJECT LOT "CN" ASSUMPTION FOR BASIN DESIGN = 95
 PROPOSED PROJECT LOT "CN" = 90

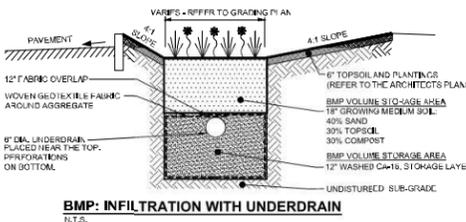
NOTE: THE CAR WASH PROJECT HAS BEEN INCLUDED IN THE DESIGN OF THE EXISTING DETENTION BASIN.

WATER QUALITY VOLUME

VOLUME REQUIRED = NEW IMPERVIOUS AREA x 1.25'
 = 48,787 S.F. x 1.25' x (1 FT / 12")
 = 5,082 C.F.

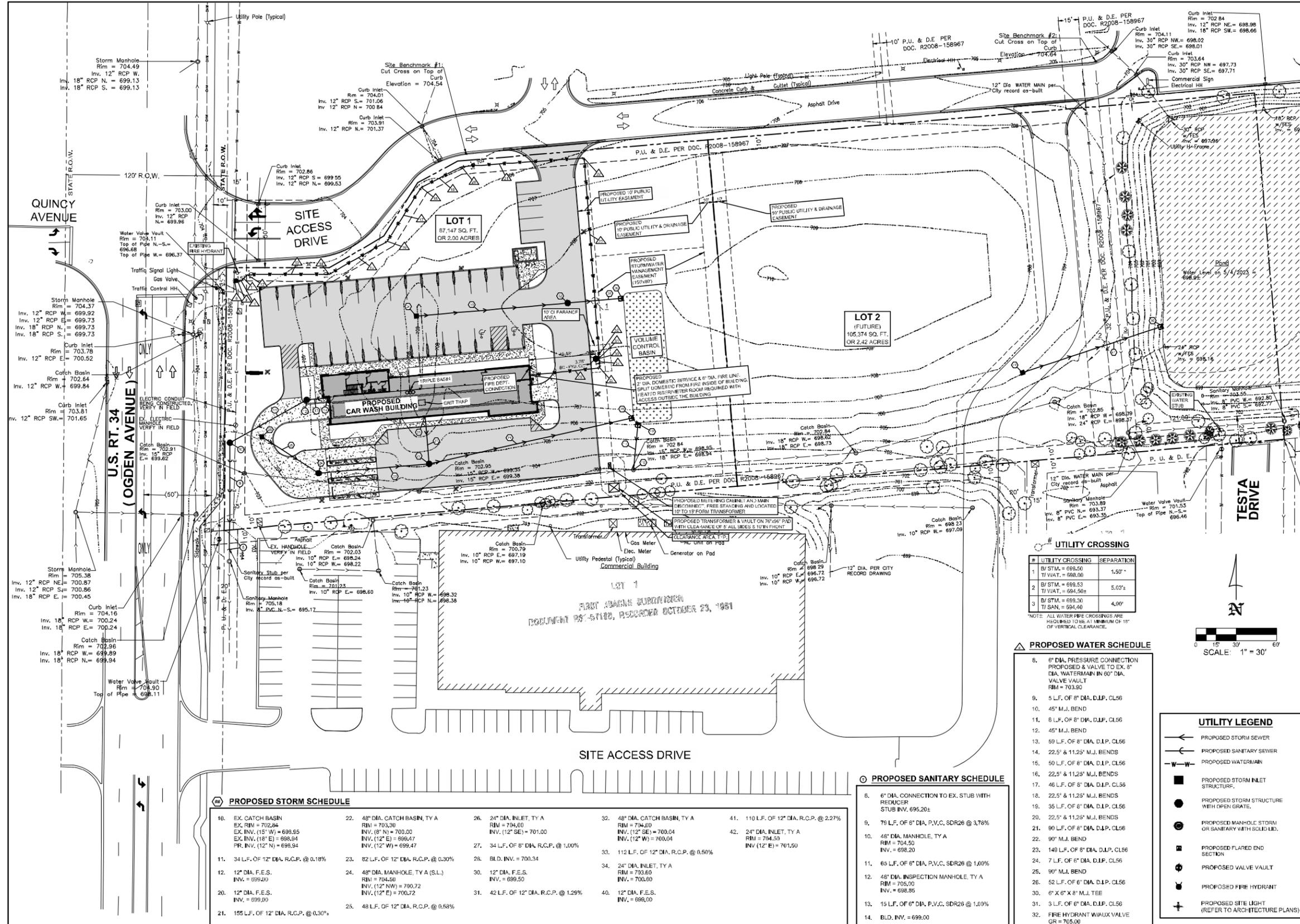
VOLUME CONTROL (HOLLOW) = VOLUME PROVIDED AT BOTTOM OF BASIN - 17% OF OPEN STORAGE BEYOND OUTLET AND 18" IN SOIL MEDIA

VOLUME PROVIDED = 5,544 CF



LEGEND

	PROPOSED ELEVATION		PROPOSED STORM MANHOLE WITH SOLID LID.
	TOP OF CURB ELEVATION EDGE OF PAVEMENT ELEVATION		PROPOSED STORM MANHOLE OR CATCH BASIN WITH OPEN GRATE.
	TOP OF CURB ELEVATION GUTTER ELEVATION EDGE OF PAVEMENT ELEVATION		PROPOSED STORM INLET WITH OPEN GRATE.
	EXISTING ELEVATION		OVERFLOW PATHS
	PROPOSED ELEVATION TO MATCH EXISTING ELEVATION		VOLUME CONTROL BEST MANAGEMENT PRACTICE AREA
	PROPOSED ELEVATION TO MATCH UNDETERMINED EX. ELEV.		
	EXISTING FLOW DIRECTION		
	PROPOSED GROUND DRAINAGE FLOW DIRECTION (SUMMIT DRAINAGE DIRECTION)		



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PRELIMINARY ENGINEERING

FOR

CAR WASH FACILITY

1492 W. OGDEN AVE.
NAPERVILLE, IL 60540

DESIGNED BY: M.S.L.
DRAWN BY: M.S.L.
DATE: 08/08/2023
PROJECT #: 1621

UTILITY PLAN

SHEET NUMBER
C-6

UTILITY CROSSING

#	UTILITY CROSSING	SEPARATION
1	B/STM. = 698.50 T/V.VAT. = 698.00	1.50' ±
2	B/STM. = 699.53 T/V.VAT. = 694.50 ±	5.03' ±
3	B/STM. = 699.30 T/SAN. = 694.40	4.90'

NOTE: ALL WATER PIPE CROSSINGS ARE HIGHWAYS TO BE AT MINIMUM OF 18" OF VERTICAL CLEARANCE.

PROPOSED WATER SCHEDULE

- 6" DIA. PRESSURE CONNECTION PROPOSED & VALVE TO EX. 8" DIA. WATERMAIN IN 60" DIA. VALVE VAULT RIM = 703.90
- 5 L.F. OF 8" DIA. D.I.P. CL56
- 45" M.J. BEND
- 8 L.F. OF 8" DIA. D.I.P. CL56
- 45" M.J. BEND
- 59 L.F. OF 8" DIA. D.I.P. CL56
- 22.5' & 11.25' M.J. BENDS
- 50 L.F. OF 8" DIA. D.I.P. CL56
- 22.5' & 11.25' M.J. BENDS
- 46 L.F. OF 8" DIA. D.I.P. CL56
- 22.5' & 11.25' M.J. BENDS
- 35 L.F. OF 8" DIA. D.I.P. CL56
- 22.5' & 11.25' M.J. BENDS
- 90 L.F. OF 8" DIA. D.I.P. CL56
- 90" M.J. BEND
- 149 L.F. OF 8" DIA. D.I.P. CL56
- 7 L.F. OF 8" DIA. D.I.P. CL56
- 90" M.J. BEND
- 52 L.F. OF 6" DIA. D.I.P. CL56
- 6" X 6" X 8" M.J. TEE
- 3 L.F. OF 6" DIA. D.I.P. CL56
- FIRE HYDRANT WAUX VALVE GR = 705.00

UTILITY LEGEND

	PROPOSED STORM SEWER
	PROPOSED SANITARY SEWER
	PROPOSED WATERMAIN
	PROPOSED STORM INLET STRUCTURE
	PROPOSED STORM STRUCTURE WITH OPEN GRATE
	PROPOSED MAN-HOLE STORM OR SANITARY WITH SOLID LID
	PROPOSED FLARED END SECTION
	PROPOSED VALVE VAULT
	PROPOSED FIRE HYDRANT
	PROPOSED SITE LIGHT (REFER TO ARCHITECTURE PLANS)

PROPOSED SANITARY SCHEDULE

- 6" DIA. CONNECTION TO EX. STUB WITH REDUCER STUB INV. 695.20 ±
- 79 L.F. OF 6" DIA. P.V.C. SDR26 @ 3.78%
- 65 L.F. OF 6" DIA. P.V.C. SDR26 @ 1.00%
- 48" DIA. INSPECTION MANHOLE, TY A RIM = 705.00 INV. = 698.95
- 15 L.F. OF 6" DIA. P.V.C. SDR26 @ 1.00%
- BLD. INV. = 699.00

PROPOSED STORM SCHEDULE

- EX. CATCH BASIN EX. RIM = 702.84 EX. INV. (15' W) = 698.65 EX. INV. (18' E) = 698.64 EX. INV. (12' N) = 698.94
- 34 L.F. OF 12" DIA. R.C.P. @ 0.18%
- 12" DIA. F.E.S. INV. = 699.90
- 12" DIA. F.E.S. INV. = 699.89
- 155 L.F. OF 12" DIA. R.C.P. @ 0.30%

- 48" DIA. CATCH BASIN, TY A RIM = 703.30 INV. (8' N) = 700.00 INV. (12' SE) = 696.47 INV. (12' W) = 698.47
- 82 L.F. OF 12" DIA. R.C.P. @ 0.30%
- 48" DIA. MANHOLE, TY A (S.L.) RIM = 704.60 INV. (12' NW) = 700.72 INV. (12' E) = 700.72
- 48 L.F. OF 12" DIA. R.C.P. @ 0.58%

- 24" DIA. INLET, TY A RIM = 704.00 INV. (12' SE) = 701.00
- 34 L.F. OF 8" DIA. R.C.P. @ 1.00%
- BLD. INV. = 700.34
- 12" DIA. F.E.S. INV. = 699.50
- 42 L.F. OF 12" DIA. R.C.P. @ 1.29%
- 12" DIA. F.E.S. INV. = 698.00

- 48" DIA. CATCH BASIN, TY A RIM = 704.00 INV. (12' SE) = 700.04 INV. (12' W) = 700.04
- 112 L.F. OF 12" DIA. R.C.P. @ 0.50%
- 24" DIA. INLET, TY A RIM = 703.60 INV. (12' E) = 701.50
- 12" DIA. F.E.S. INV. = 698.00

- 110 L.F. OF 12" DIA. R.C.P. @ 2.27%
- 24" DIA. INLET, TY A RIM = 704.50 INV. (12' E) = 701.50

