CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director

Mayor Richard J. Berry

December 30, 2016

Fred C. Arfman, P.E.
Isaacson & Arfman, PA
128 Monroe St NE
Albuquerque, NM 87108

Re:

Advanced Auto Parts
10800 Unser Blvd. NW
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 4-28-16 (A11D012)
Certification dated: 12-23-16

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

Dear Mr. Arfman,

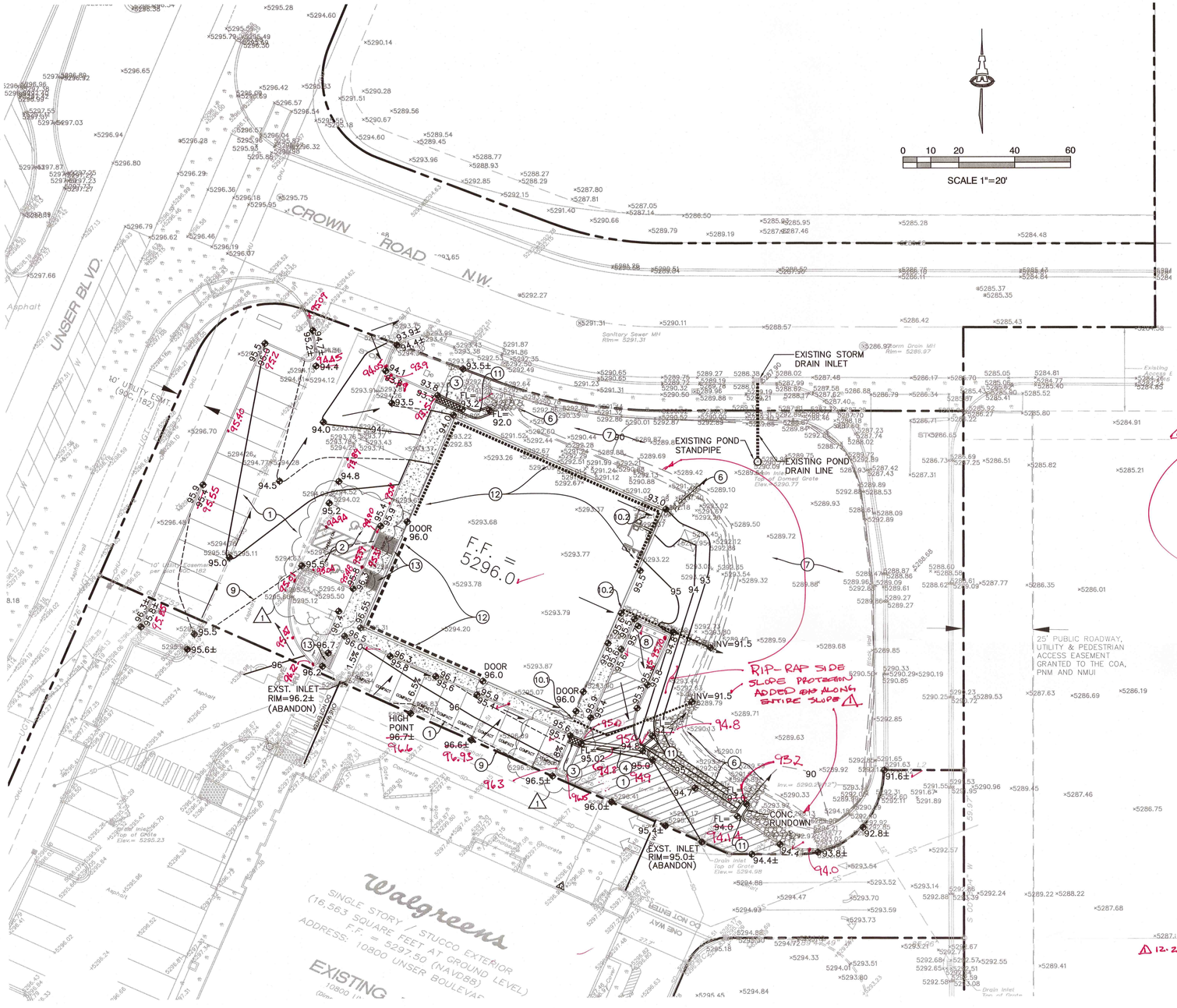
Based upon the information provided in your submittal received 12/23/2016, the above referenced Certification received is acceptable for the release of permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3686 or Totten Elliott at 924-3982.

Sincerely,

Abiel Carrillo, P.E.,
Principal Engineer, Planning Department
Development and Review Services

TE/AC
C: email, Cordova, Camille C.; Miranda, Rachel; Sandoval, Darlene M.; Blocker, Lois



KEYED NOTES

1. CONSTRUCT NEW ASPHALT PAVEMENT AND CURB AND GUTTER AT ELEVATIONS SHOWN. SEE PAVING PLAN FOR PAVEMENT MATERIAL, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
2. CONSTRUCT HC PARKING AREA TO ADA STANDARDS. MAX. 2% SLOPE IN ANY DIRECTION.
3. CONSTRUCT 18" WIDE (BOTTOM WIDTH) COVERED SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236 MODIFIED PER DETAIL ON SHEET CG-501 (2 LOCATIONS).
4. CONSTRUCT 24" WIDE CONCRETE ALLEY GUTTER PER C.O.A. STD. DWG. 2415B. ⚠1 INSTALLED
5. NOT USED
6. INSTALL ROCK EROSION PROTECTION AT CURB OPENING, ON ALL SIDESLOPES > 4:1 AND WITHIN FLOWLINES CARRYING CONCENTRATED FLOW (3' WIDE) LIMITS HATCHED PER LEGEND. SEE DETAIL SHEET CG-501.
7. EXISTING DETENTION POND CONSTRUCTED AS PART OF THE DRAINAGE MASTER PLAN.
8. CONSTRUCT NEW CONCRETE DUMPSTER PAD AND ENCLOSURE AT ELEVATIONS SHOWN.
9. 0.5' CONTOURS (DASHED) ARE PROVIDED TO CLARIFY GRADING DRAINAGE INTENT. SEE LEGEND.
10.
    - 10.1. EXTEND ROOF DOWNSPOUT BELOW GRADE AND INSTALL 6" DIA. DRAINLINE (HDPE OR PVC: SEE GENERAL NOTES ON SHEET CG-501). INVERT AT BUILDING = 93.0. EXTEND DRAINLINE TO DISCHARGE INTO EXISTING POND AT INVERT = 91.5. INSTALL 3' WIDE EROSION PROTECTION FROM END OF DRAINLINE TO POND BOTTOM.
    - 10.2. OWNER'S OPTION: EXTEND ROOF DOWNSPOUT BELOW GRADE (SEE 10.1 ABOVE) OR RELEASE TO SURFACE 3' DIA. F.F. ROCK SPLASHPAD. CONSTRUCT 3' WIDE SWALE TO POND BOTTOM. SEE CG-501 FOR DETAIL.
11. CONSTRUCT 2' WIDE (BOTTOM WIDTH) CONCRETE RUNDOWN TO PASS CONCENTRATED FLOW TO POND. INSTALL EROSION PROTECTION FROM END OF RUNDOWN TO POND BOTTOM.
12. SEE ARCHITECTURAL PLANS FOR INFORMATION REGARDING BUILDING EXTENDED AND RETAINING STEMWALLS REQUIRED TO ACHIEVE SITE GRADES.
13. CONSTRUCT ADA COMPLIANT ACCESS RAMP. SEE ARCHITECTURAL FOR DIMENSIONS.

NOT CONSTRUCTED AS RCC; REPLACED WITH APPROPRIATELY SIZED RACK RIP-RAP (4"-8" DIA). → O.K.

⚠ 12.28.16: ADDITIONAL INFORMATION ADDED

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE 7322, of the firm Isaacson & Arfman, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated **April 28, 2016**. The record information edited onto the original design document has been obtained by Russ Hugg, NMPS 9750, of the firm Surv-Tek, Inc. I further certify that I have personally visited the project site on December 1, 2016 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for **Permanent Certificate of Occupancy**.

Contractor has been directed to remedy the "Birdbath" at the south corner of the building at and downgrade of the sidewalk culvert.

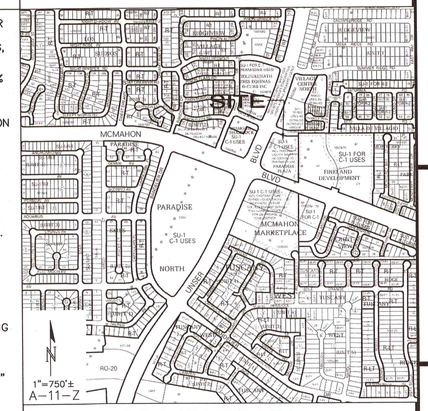
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

FRED C. ARFMAN NEW MEXICO 7322 PROFESSIONAL ENGINEER

Fred C. Arfman, NMPE 7322

December 1, 2016 (12.28.16) ⚠
Date

VICINITY MAP



PROJECT DATA

PROPERTY: THE SITE IS A PARTIALLY DEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP A-11. THE SITE IS BOUND TO THE EAST BY A PERMANENT DETENTION POND SIZED FOR THE FULLY DEVELOPED CONDITION FOR TRACTS 1, 2 AND 3, PARADISE PLAZA, TO THE WEST BY UNSER BLVD. NW, TO THE NORTH BY CROWN ROAD NW AND TO THE SOUTH BY FULLY DEVELOPED COMMERCIAL PROPERTY.

SITE AREA: 0.8990 ACRES

PROPOSED IMPROVEMENTS: TO INCLUDE A 6,889 SF COMMERCIAL BULDING WITH ASSOCIATED PAVED PARKING, PEDESTRIAN WALKS, DRAINAGE IMPROVEMENTS, AND LANDSCAPING.

LEGAL: TRACT 1, PARADISE PLAZA, CITY OF ALBUQUERQUE, NEW MEXICO.

BENCHMARK: ACS MONUMENT "5-A11" ELEV. 5333.08 NAVD 1988

OFF-SITE: CROSS-LOT DRAINAGE EASEMENT BETWEEN TRACTS 1, 2 AND 3 IS PROVIDED BY PLAT. DRAINAGE COVENANTS FOR MAINTENANCE OF THE PRIVATE STORM DRAIN SYSTEM AND PONDS HAS BEEN ADDRESSED BY SEPARATE DOCUMENTS. EXISTING DETENTION POND WAS CONSTRUCTED AS PART OF THE TRACT 2 CONSTRUCTION.

FLOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS PER MAP NO. 35001C0104H, EFFECTIVE DATE AUGUST 16, 2012.

DRAINAGE PLAN CONCEPT: THIS SITE WILL DISCHARGE ALL DEVELOPED FLOW TO THE EXISTING DETENTION POND CONSTRUCTED AS PART OF TRACT 2 DEVELOPMENT. THE DETENTION POND IS SIZED TO RELEASE THE FULLY DEVELOPED PARADISE PLAZA TRACTS (1, 2 AND 3) AT THE APPROVED RATE.

FIRST FLUSH REQUIREMENT: STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM. BASED ON 0.44 ACRE IMPERVIOUS, THE REQUIRED FIRST FLUSH VOLUME FOR TRACT 1 WILL BE 544 CF.

THE EXISTING DETENTION POND BOTTOM WILL PROVIDE FIRST FLUSH RETENTION FOR TRACT 1 WITH ADDITIONAL VOLUME AVAILABLE FOR FUTURE DEVELOPMENT (SEE SUPPLEMENTAL INFORMATION PACKET). ALL STORM WATER FROM THE IMPERVIOUS AREAS OF TRACT 1 SHALL BE DIRECTED TO THIS POND.

ENGINEER: FRED C. ARFMAN, NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE, 87111
TELEPHONE: (505) 268-8828

LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR (1' INCREMENT)
- PROPOSED CONTOUR (0.5' INCREMENT)
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FF = 5296.00 FINISH FLOOR ELEVATION
- PROPOSED GRADE BREAK
- PROPOSED FIRST FLUSH RETENTION PONDING AREA WITH PERCOLATION PIT
- PROPOSED EROSION CONTROL

GRADING & DRAINAGE PLAN

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com

2152 CG-101.dwg Sep 02,2016

FRED C. ARFMAN NEW MEXICO 7322 PROFESSIONAL ENGINEER 04.28.16

Advance Auto Parts STORE # —

TRACT 1, PARADISE PLAZA
10800 UNSER BLVD. NW
ALBUQUERQUE, NM 87114

REVISIONS			
REV	DATE	DESCRIPTION	
⚠	09/02/16	UPDATED SITE BASE	

DATE 4-26-16
PROJECT # IA2152
DRAWN BY: BJB
CHECK BY: FCA

VERSION Q4- 83x83

66ARCHITECT, LLC
Clint Wilsey, Architect
clint.wilsey@gmail.com
505 280-0043

CG-101

811 Know what's below. Call before you dig.

ISAACSON & ARFMAN, P.A. *Consulting Engineering Associates*

Thomas O. Isaacson, PE(RET.) & LS(RET.) . Fred C. Arfman, PE . Åsa Nilsson-Weber, PE

December 23, 2016

Abiel Carrillo, P.E.
Principal Engineer; Planning Dept.
Development Review Services
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Advanced Auto Parts; 10800 Unser Blvd. NW
(A11/D012)

Subj: G&D Certification

Dear Mr. Carrillo,

Isaacson & Arfman, PA is providing this supplemental letter to support our request for Permanent Hydrology Certificate of Occupancy for the above referenced project. Please find our response to the three comments that we were asked to address in your December 5th letter:

1. The designed 18" wide sidewalk culverts were constructed as 9½" inside face-face. They have been analyzed as 9" F-F and both satisfy the design requirements as found on the attached Supplemental Design Calculations.
2. The 24" concrete swale (Note #4) has been constructed and the adjacent asphalt paving has a drainage pattern that allows the storm waters to enter onto the swale.
3. The concrete rundown adjacent to the NW corner of the building was replaced aby 4"-8" rock rip-rap that was added to the entire south and west side-slopes of the pond. It is an acceptable alternative.

We have indicated items 2 & 3 on the revised G&D As-Built plan.

Please schedule the re-inspection of the site as a prelude to issuance of the Permanent C.O.

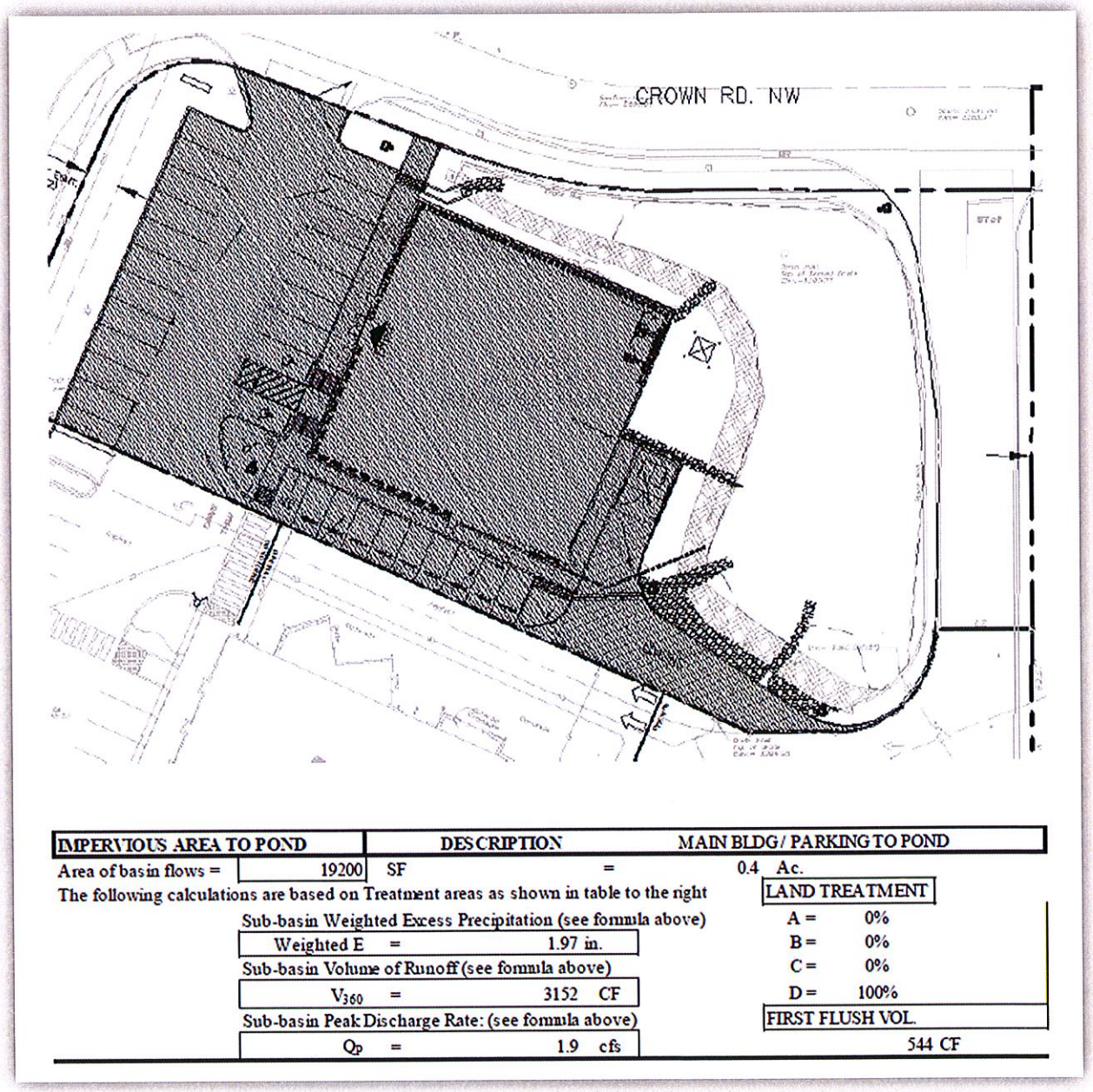
Sincerely,
Isaacson & Arfman, PA

Fred C. Arfman, P.E.

*128 Monroe St. N.E. * Albuquerque, NM 87108 * (505) 268-8828 * www.iacivil.com*

Based on the approved Supplemental Information for Advance Auto dated April, 2016, The impervious area from Tract 1 (building and parking) will generate 1.9 cfs during the 100-year 6-hour storm event.

(excerpt image from original report)



IMPERVIOUS AREA TO POND		DESCRIPTION		MAIN BLDG / PARKING TO POND	
Area of basin flows =	19200	SF	=	0.4	Ac.
The following calculations are based on Treatment areas as shown in table to the right				LAND TREATMENT	
Sub-basin Weighted Excess Precipitation (see formula above)				A =	0%
Weighted E	=	1.97	in.	B =	0%
Sub-basin Volume of Runoff (see formula above)				C =	0%
V_{360}	=	3152	CF	D =	100%
Sub-basin Peak Discharge Rate: (see formula above)				FIRST FLUSH VOL.	
Q_p	=	1.9	cfs		544 CF

Approximately 60% of that is pavement (1.9 x 0.6 = 1.14 cfs) which is passed to the pond via two covered sidewalk culverts.

Based on calculations, each 9" wide 'u' shaped channel has a capacity of 0.855 cfs at a depth of 0.25' and a full capacity of 2.17 cfs at a depth of 0.5'. OK

FREDERICK C. ARFMAN
NEW MEXICO
7329
PROFESSIONAL ENGINEER

12.23.16

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Dec 20 2016

Advanced Auto

Rectangular

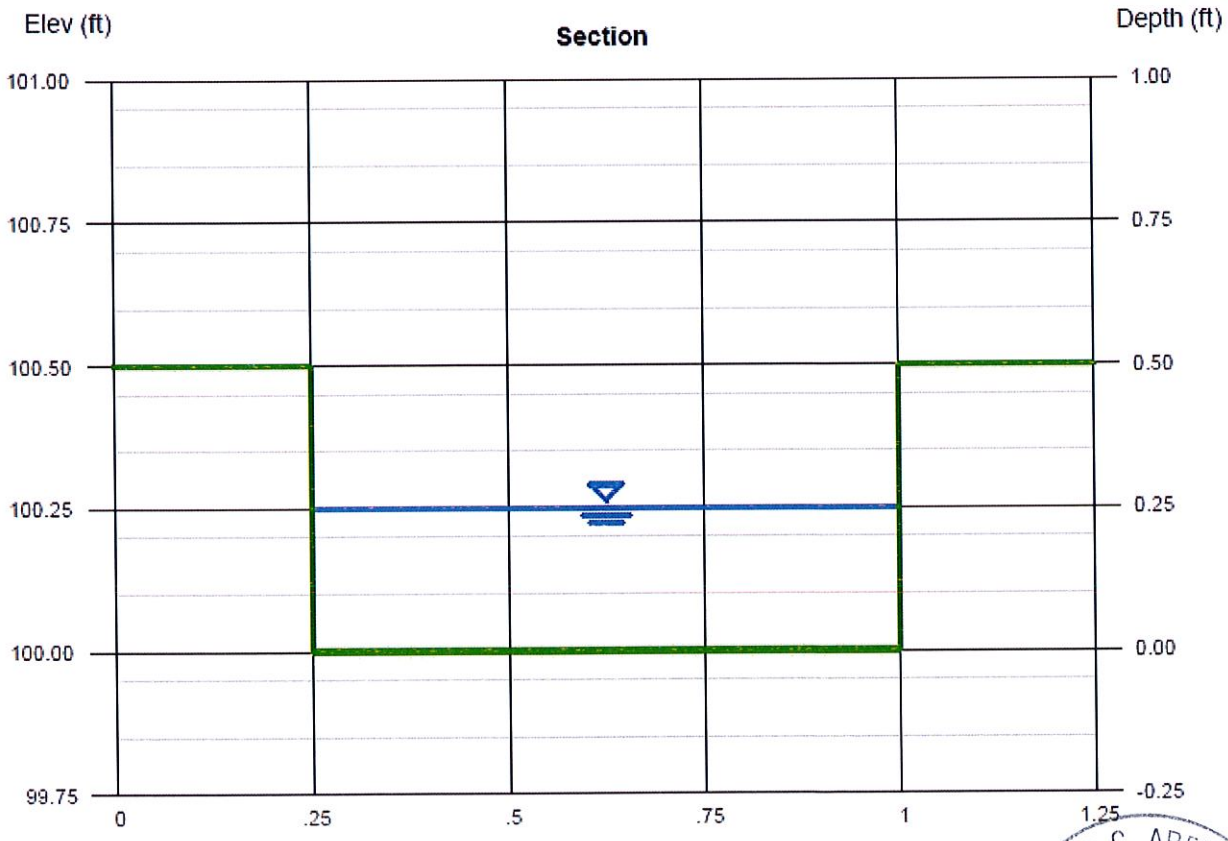
Bottom Width (ft)	= 0.75
Total Depth (ft)	= 0.50
Invert Elev (ft)	= 100.00
Slope (%)	= 2.00
N-Value	= 0.013

Calculations

Compute by:	Q vs Depth
No. Increments	= 10

Highlighted

Depth (ft)	= 0.25
Q (cfs)	= 0.855
Area (sqft)	= 0.19
Velocity (ft/s)	= 4.56
Wetted Perim (ft)	= 1.25
Crit Depth, Yc (ft)	= 0.35
Top Width (ft)	= 0.75
EGL (ft)	= 0.57



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