

## MEMORANDUM

To: Trustee Colleen Konicek, Planning Liason  
Robert Kosin, Village Administrator

625 Forest Edge Drive, Vernon Hills, IL 60061

TEL 847.478.9700 ■ FAX 847.478.9701

www.gha-engineers.com

From: Daniel J. Strahan, P.E., CFM  
Gewalt Hamilton Associates (GHA)

Date: November 14, 2014

Re: Reserve at Barrington- Preliminary Stormwater Report

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Recently our office received a copy of the preliminary engineering plans for The Reserve at Barrington, a 43-unit residential subdivision located along South Grove Avenue in the Village of Barrington, to the northeast of the Marquardt of Barrington and Motorwerks properties. Runoff from this and other developments east of Barrington Road drain west into the Cornell Basin in Barrington Hills and is subject to an intergovernmental agreement between the Village of Barrington and the Village of Barrington Hills and associated stormwater management plan developed in 1986. The preliminary engineering plan is scheduled to be presented for approval to the Village of Barrington Board of Trustees on November 24<sup>th</sup>, 2014. The attached exhibit illustrates the location of this parcel within the study area.

As shown on the attached plan sheets, drainage from the residential lots is planned to be collected into storm sewers and directed into one of three detention ponds. The detention ponds are intended to store runoff and release it at a controlled rate into an existing wetland at the south end of the property. The allowable release rate for the site is based on the Lake County Watershed Development Ordinance (WDO) requirement of 0.15 cfs/acre, which is more stringent than the 0.25 cfs/acre indicated in the Southgate Stormwater Management Plan for this drainage area. Based on Lake County WDO criteria a total of 2.64 acre-feet of detention volume storage would be required for the proposed development, while 2.75 acre-feet is proposed, indicative of a small surplus. Additional Lake County WDO requirements such as Runoff Volume Reduction and water quality treatment would further mitigate impacts from the development and are typically developed during the final engineering process.

Based on our review, the stormwater design criteria indicated in the preliminary engineering plans meets the minimum requirements of the Southgate Stormwater Management Plan as well as the more stringent requirements of the Lake County WDO.

cc: Board of Trustees



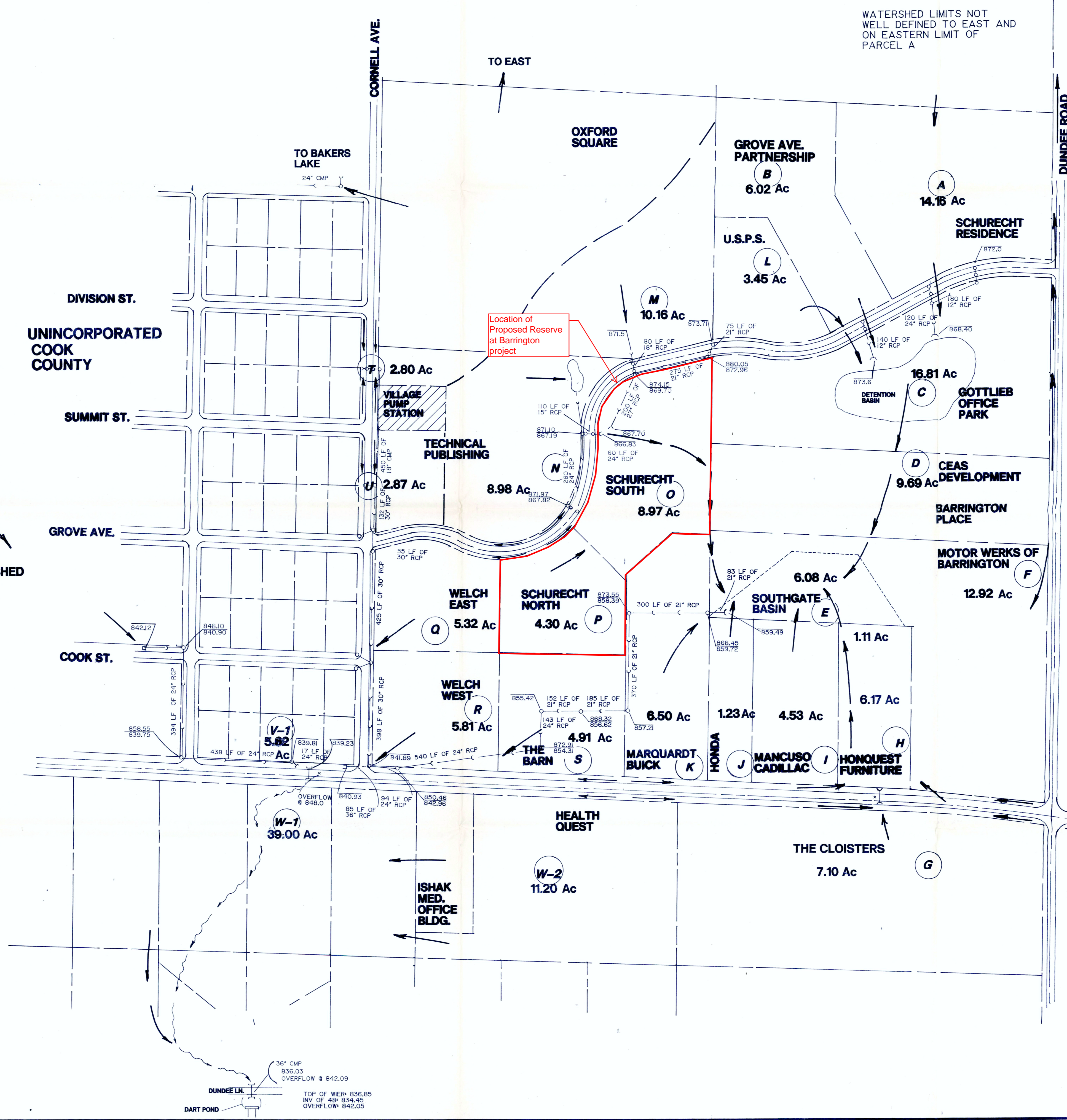
# SOUTHGATE STORM WATER MANAGEMENT PROJECT

## SERVICE AREA

### DOWNSTREAM STORAGE

- OPTION I**  
 BASIN IN PARCEL R  
 BASIN IN 3 LOTS OF PARCEL V-1
- OPTION II**  
 BASIN IN 6 LOTS OF PARCEL V-1  
 NO BASIN IN PARCEL R
- OPTION III**  
 BASIN IN 2 LARGE LOTS OF PARCEL W-1  
 NO BASINS IN PARCELS V-1 OR R

COLLEGE ROADS WATERSHED  
 V-2  
 160.00 Ac



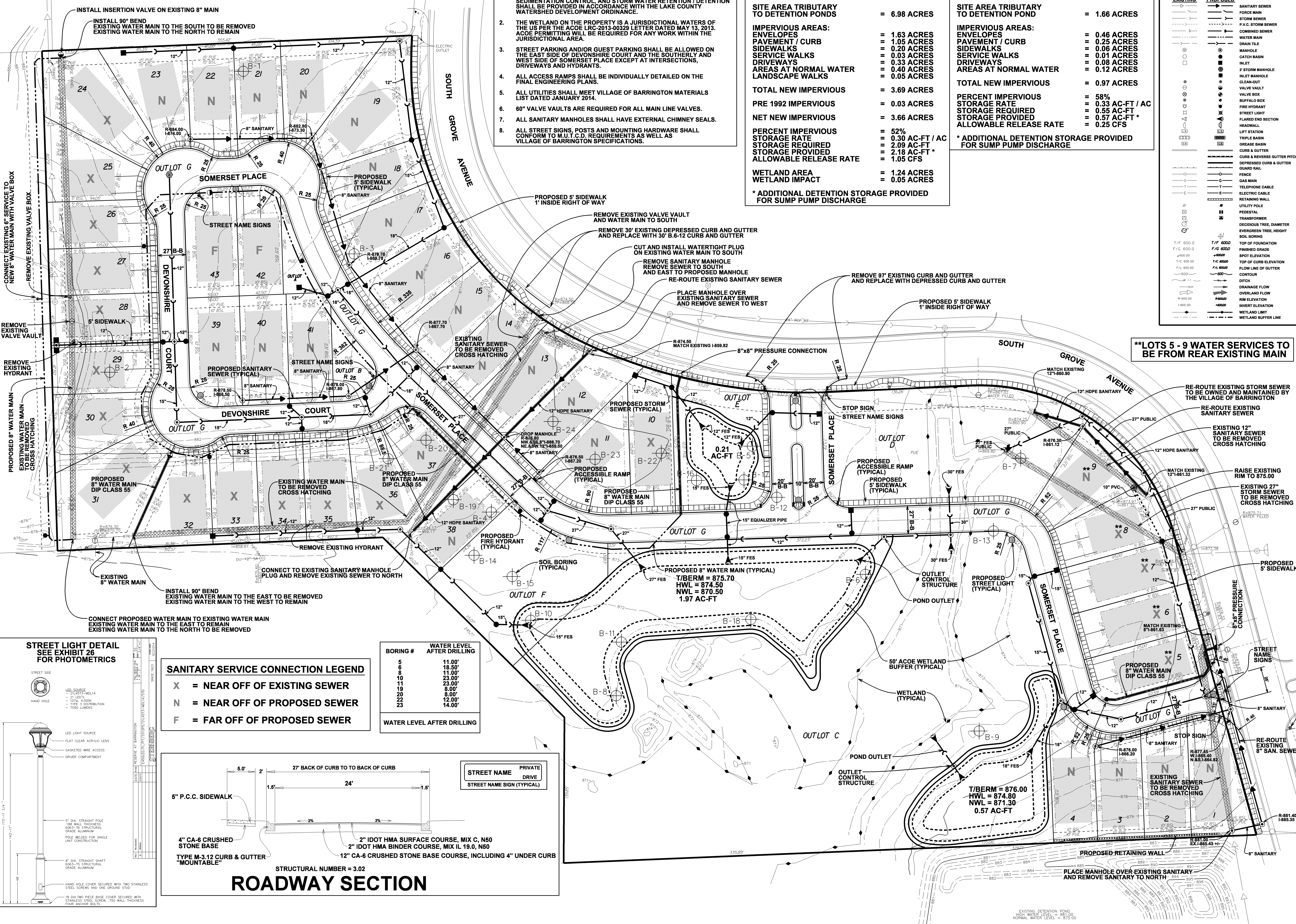
VILLAGE OF INVERNESS

NOTE: (1) AREA SHOWN ON THIS EXHIBIT REFERS TO WATERSHED, NOT PRIVATE OWNERSHIP.  
 (2) ONLY EXISTING SEWERS, DETENTION BASINS AND FLOW PATTERNS ARE NOTED.

## EXHIBIT I-A

NO.	DATE	REVISION	BY
PROJECT TITLE		PROJECT NO. 8622	
STORM SEWERS AREAS		SCALE 1"=200'	
FLOW PATTERN		DATE 10/8/86	
PROJECT SOUTHGATE DISTRICT		DRAWN BY TEM	
		CHECKED BY RBH	
DRAWING NO.		EXHIBIT	
GEWALT-HAMILTON ASSOCIATES, INC.		I-A	
3000 Dundee Road, Suite 206		OF _____ SHEETS	
NORTHBROOK, ILLINOIS 60062			
(312) 272-7750			



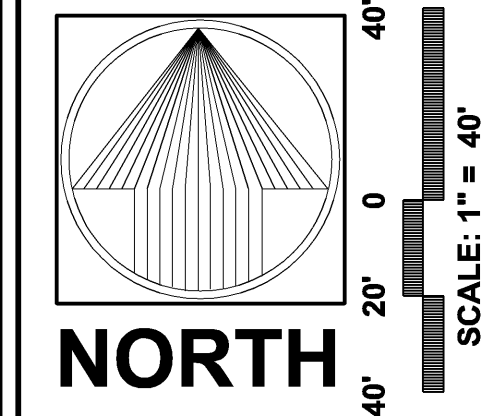
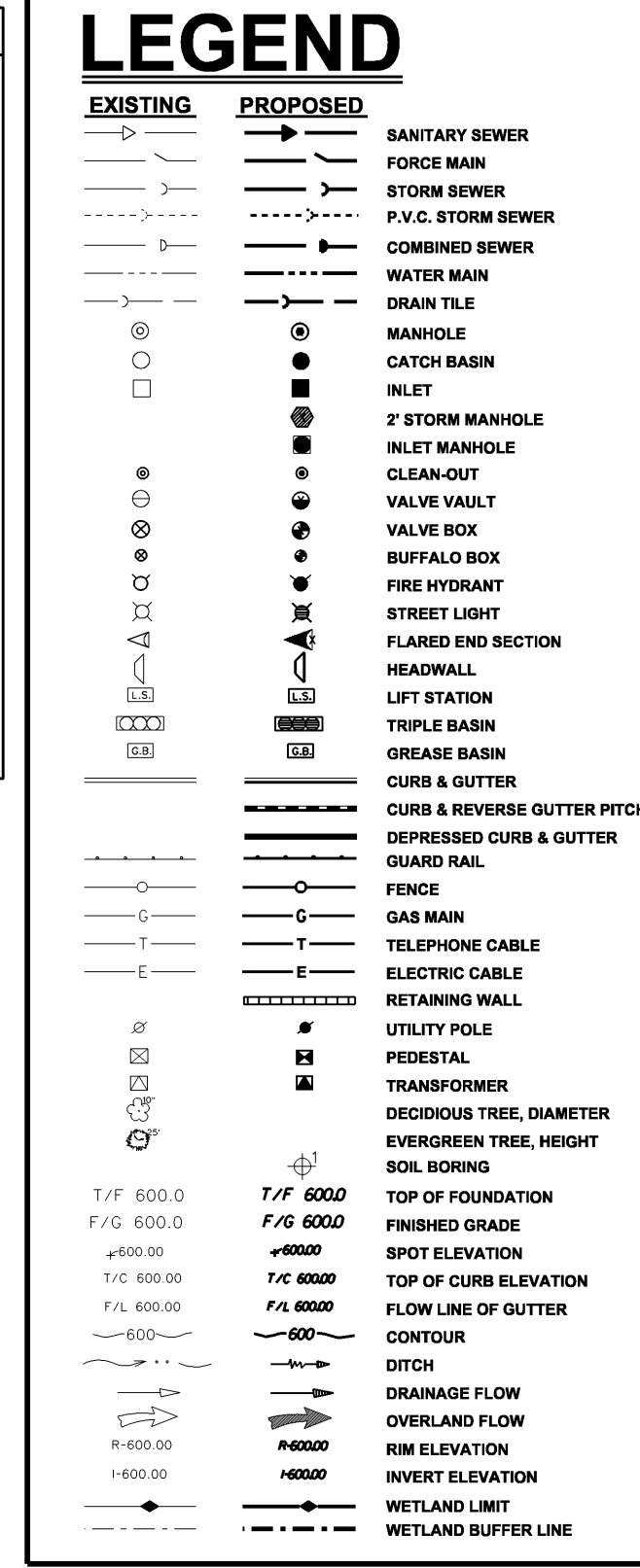


- NOTES:**
- DRAINAGE AND STORMWATER MANAGEMENT, SOIL EROSION AND SEDIMENTATION CONTROL, AND STORM WATER RETENTION / DETENTION SHALL BE PROVIDED IN ACCORDANCE WITH THE LAKE COUNTY WATERSHED DEVELOPMENT ORDINANCE.
  - THE WETLAND ON THE PROPERTY IS A JURISDICTIONAL WATERS OF THE US PER THE ACOE LRC-2013-00329 LETTER DATED MAY 13, 2013. ACOE PERMITTING WILL BE REQUIRED FOR ANY WORK WITHIN THE JURISDICTIONAL AREA.
  - STREET PARKING AND/OR GUEST PARKING SHALL BE ALLOWED ON THE EAST SIDE OF DEVONSHIRE COURT AND THE SOUTHERLY AND WEST SIDE OF SOMERSET PLACE EXCEPT AT INTERSECTIONS, DRIVEWAYS AND HYDRANTS.
  - ALL ACCESS RAMP SHALL BE INDIVIDUALLY DETAILED ON THE FINAL ENGINEERING PLANS.
  - ALL UTILITIES SHALL MEET VILLAGE OF BARRINGTON MATERIALS LIST DATED JANUARY 2014.
  - 60" VALVE VAULTS ARE REQUIRED FOR ALL MAIN LINE VALVES.
  - ALL SANITARY MANHOLES SHALL HAVE EXTERNAL CHIMNEY SEALS.
  - ALL STREET SIGNS, POSTS AND MOUNTING HARDWARE SHALL CONFORM TO M.U.T.C.D. REQUIREMENTS AS WELL AS VILLAGE OF BARRINGTON SPECIFICATIONS.

TOTAL SITE AREA= 11.25 ACRES

PRELIMINARY DETENTION DATA (WEST)		PRELIMINARY DETENTION DATA (EAST)	
SITE AREA TRIBUTARY TO DETENTION PONDS	= 6.98 ACRES	SITE AREA TRIBUTARY TO DETENTION POND	= 1.66 ACRES
IMPERVIOUS AREAS:		IMPERVIOUS AREAS:	
ENVELOPES	= 1.63 ACRES	ENVELOPES	= 0.46 ACRES
PAVEMENT / CURB	= 1.05 ACRES	PAVEMENT / CURB	= 0.25 ACRES
SIDEWALKS	= 0.20 ACRES	SIDEWALKS	= 0.08 ACRES
SERVICE WALKS	= 0.03 ACRES	SERVICE WALKS	= 0.01 ACRES
DRIVEWAYS	= 0.33 ACRES	DRIVEWAYS	= 0.08 ACRES
AREAS AT NORMAL WATER	= 0.40 ACRES	AREAS AT NORMAL WATER	= 0.12 ACRES
LANDSCAPE WALKS	= 0.05 ACRES		
TOTAL NEW IMPERVIOUS	= 3.69 ACRES	TOTAL NEW IMPERVIOUS	= 0.97 ACRES
PRE 1992 IMPERVIOUS	= 0.03 ACRES	PERCENT IMPERVIOUS	= 58%
NET NEW IMPERVIOUS	= 3.66 ACRES	STORAGE RATE	= 0.33 AC-FT / AC
PERCENT IMPERVIOUS	= 52%	STORAGE REQUIRED	= 0.55 AC-FT
STORAGE RATE	= 0.30 AC-FT / AC	STORAGE PROVIDED	= 0.57 AC-FT*
STORAGE REQUIRED	= 2.09 AC-FT	ALLOWABLE RELEASE RATE	= 0.25 CFS
STORAGE PROVIDED	= 2.18 AC-FT*		
ALLOWABLE RELEASE RATE	= 1.05 CFS		
WETLAND AREA	= 1.24 ACRES		
WETLAND IMPACT	= 0.05 ACRES		

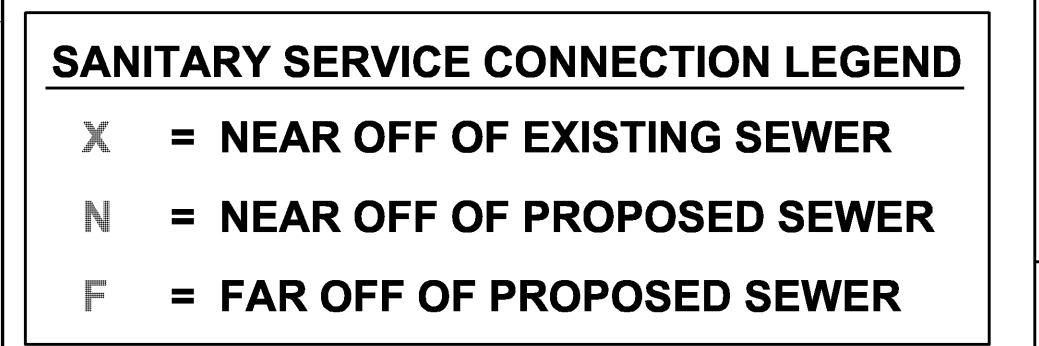
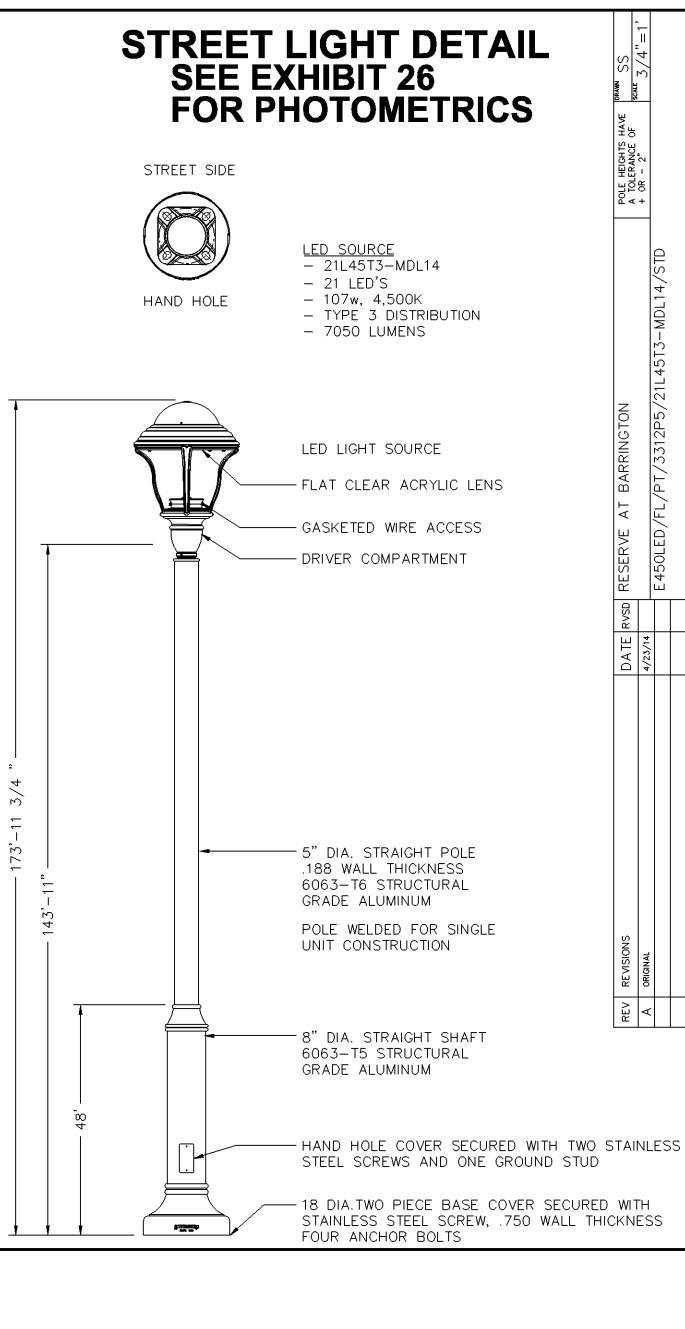
\* ADDITIONAL DETENTION STORAGE PROVIDED FOR SUMP PUMP DISCHARGE



**THE RESERVE AT BARRINGTON**  
BARRINGTON, ILLINOIS

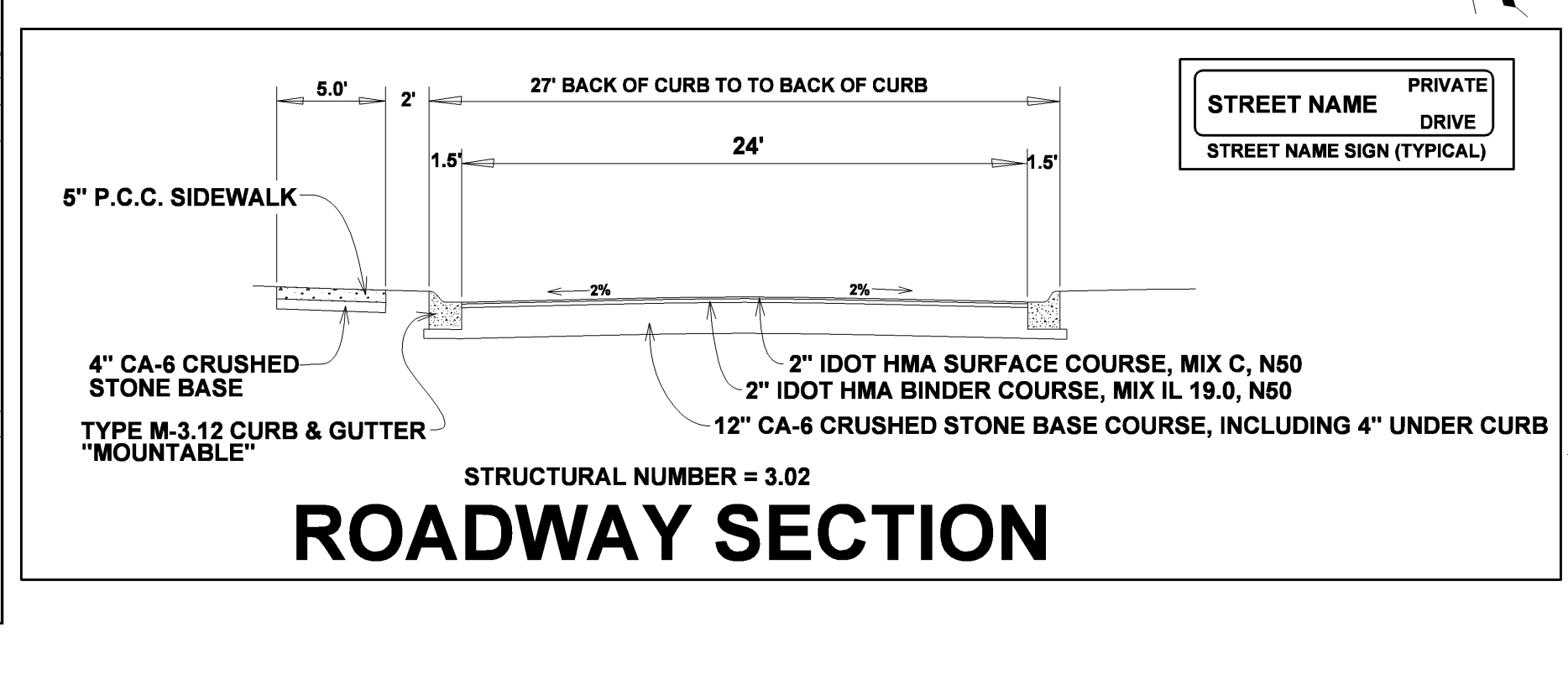
**PEARSON, BROWN & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
1850 W. WINCHESTER ROAD - SUITE 205  
LIBERTYVILLE, IL 60088  
PHONE: (847) 387-2527  
E-MAIL ADDRESS: pba@pearsonbrown.com

DESIGNED BY: R.A.A.  
DRAWN BY: A.K.Z.  
CHECKED BY: A.K.Z.  
ORIGINAL ISSUE: 03/05/14



BORING #	WATER LEVEL AFTER DRILLING
5	11.00'
6	18.50'
8	11.00'
10	23.00'
11	23.00'
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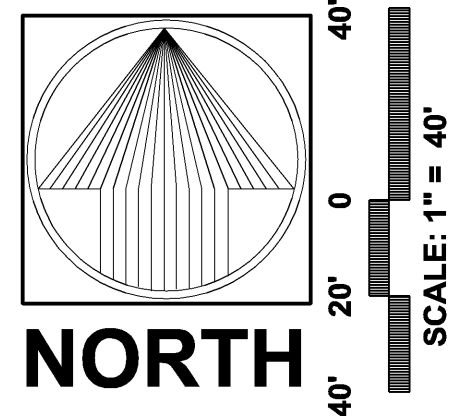
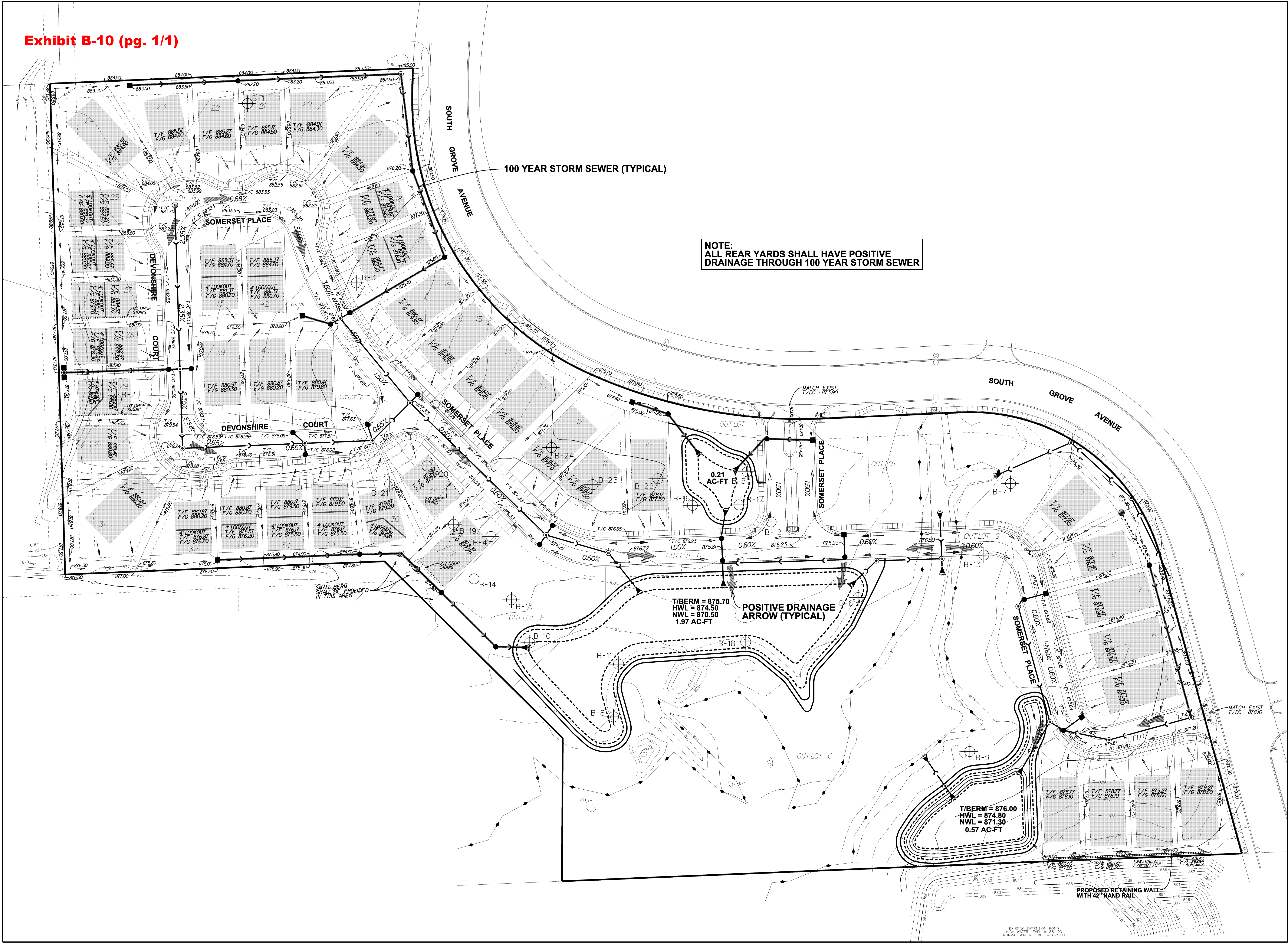
**PRELIMINARY ENGINEERING**

OWNER / APPLICANT:  
**WEEKLEY HOMES, LLC**  
1111 NORTH POST ROAD  
HOUSTON, TX 77055  
1-713-963-0500

EXHIBIT

DATE BY	DESCRIPTION
04/08/14 AKZ	REVISED PER VILLAGE REVIEW COMMENTS
04/22/14 AKZ	REVISED PER VILLAGE REVIEW COMMENTS
08/21/14 AKZ	REVISED PER NEW LAND PLAN





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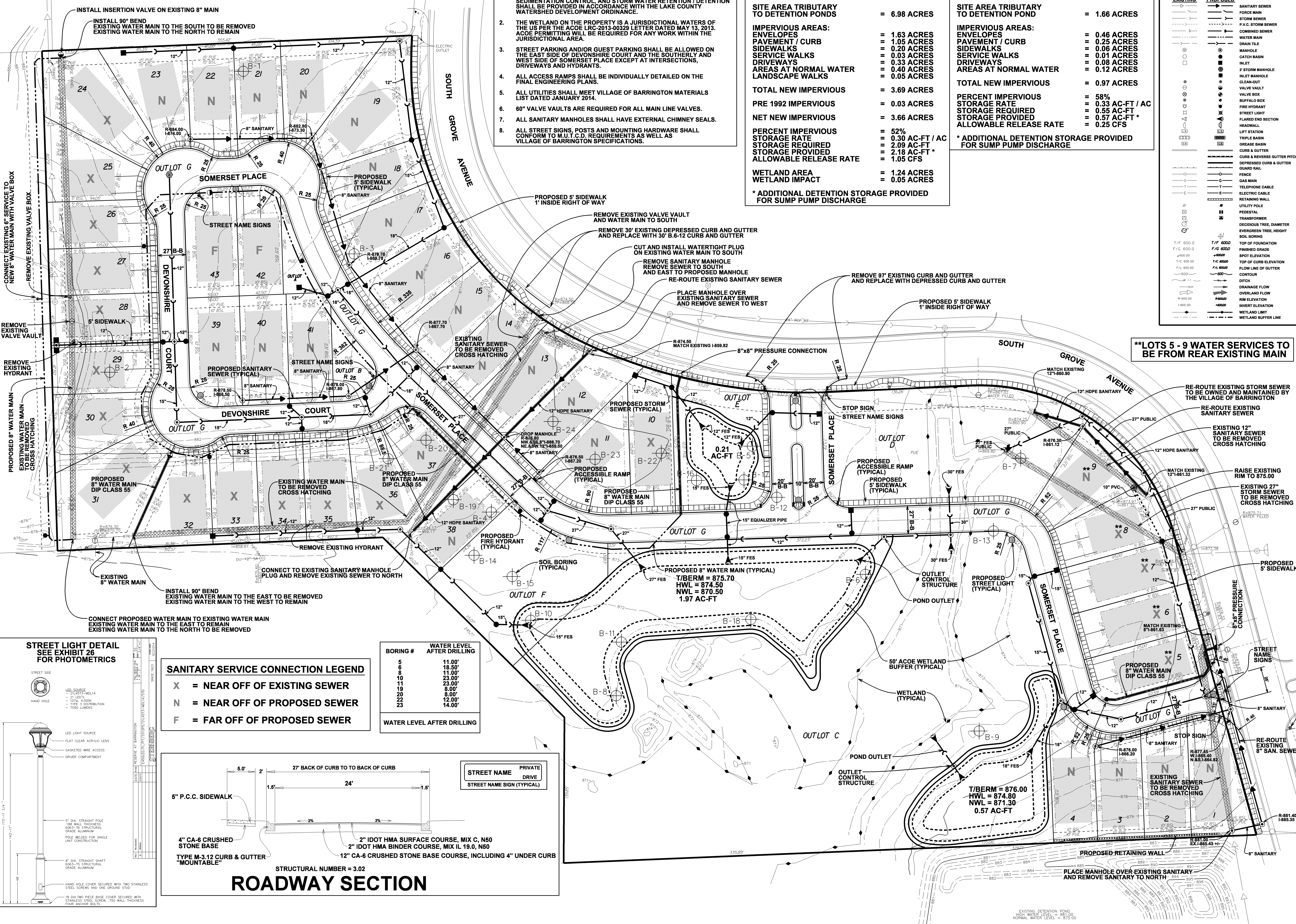
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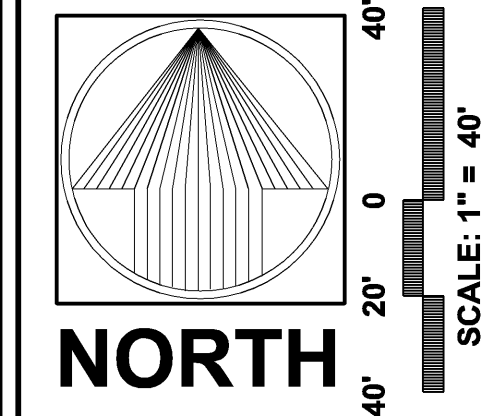
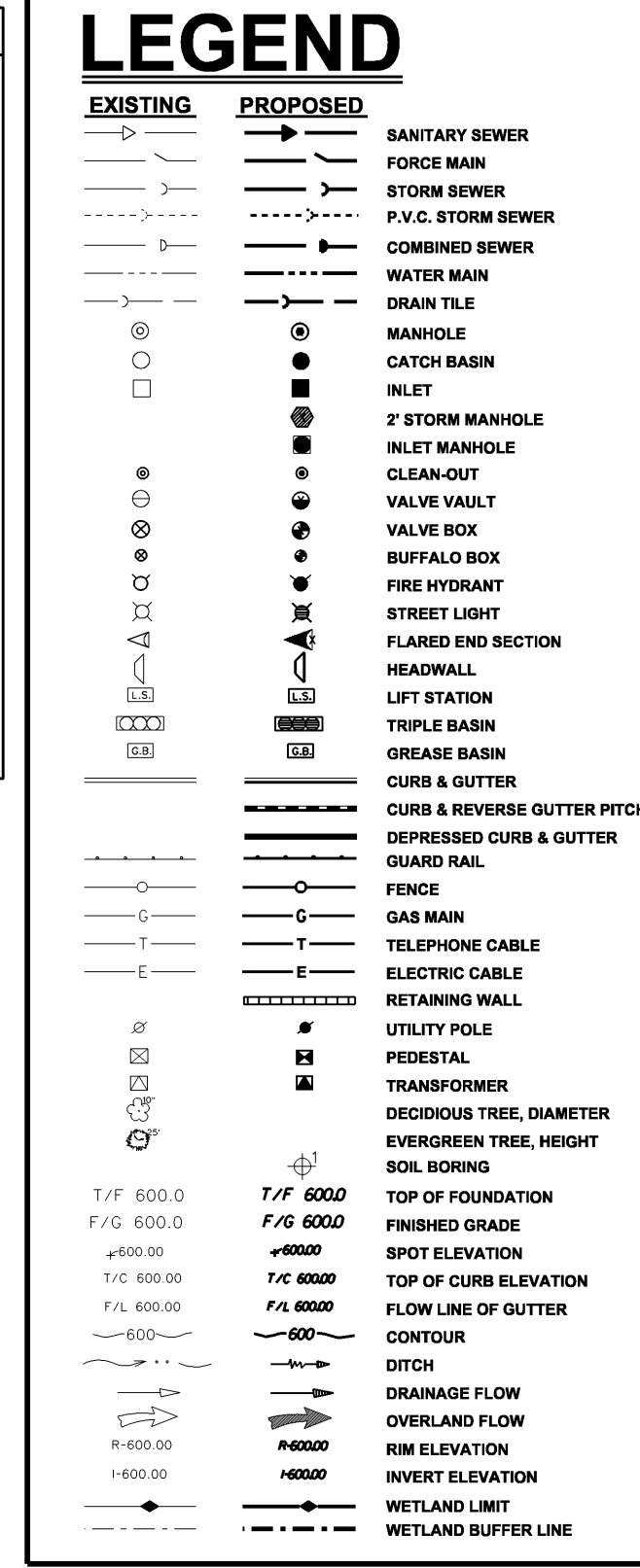


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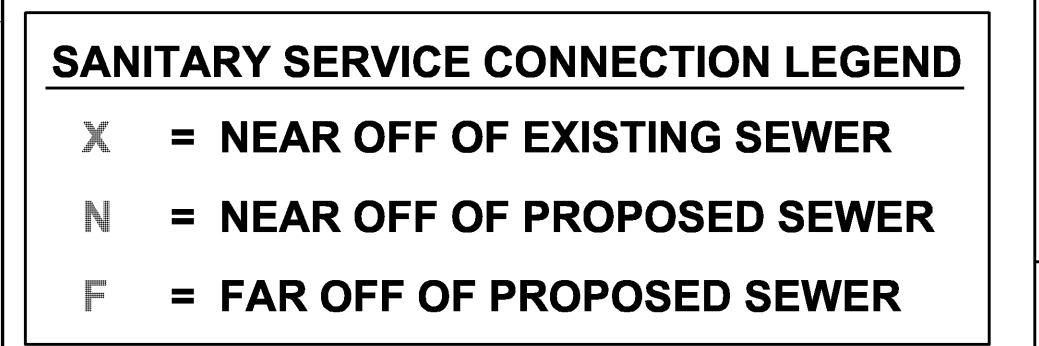
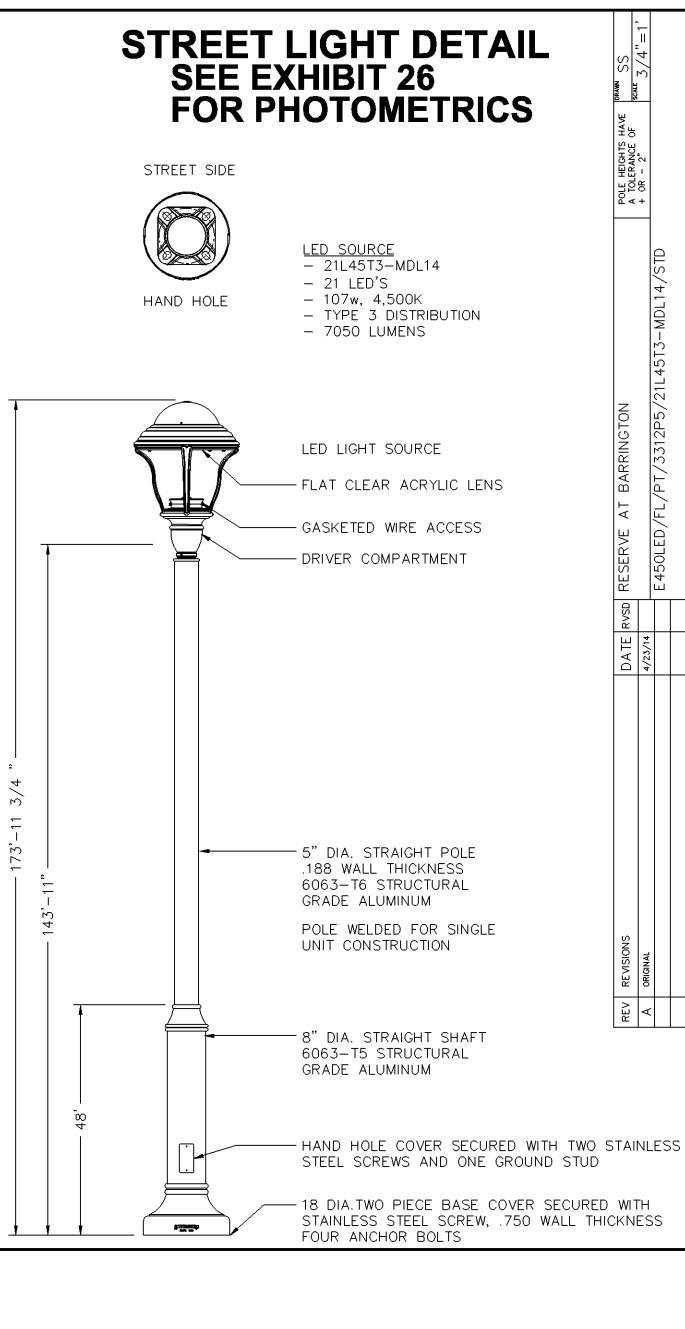
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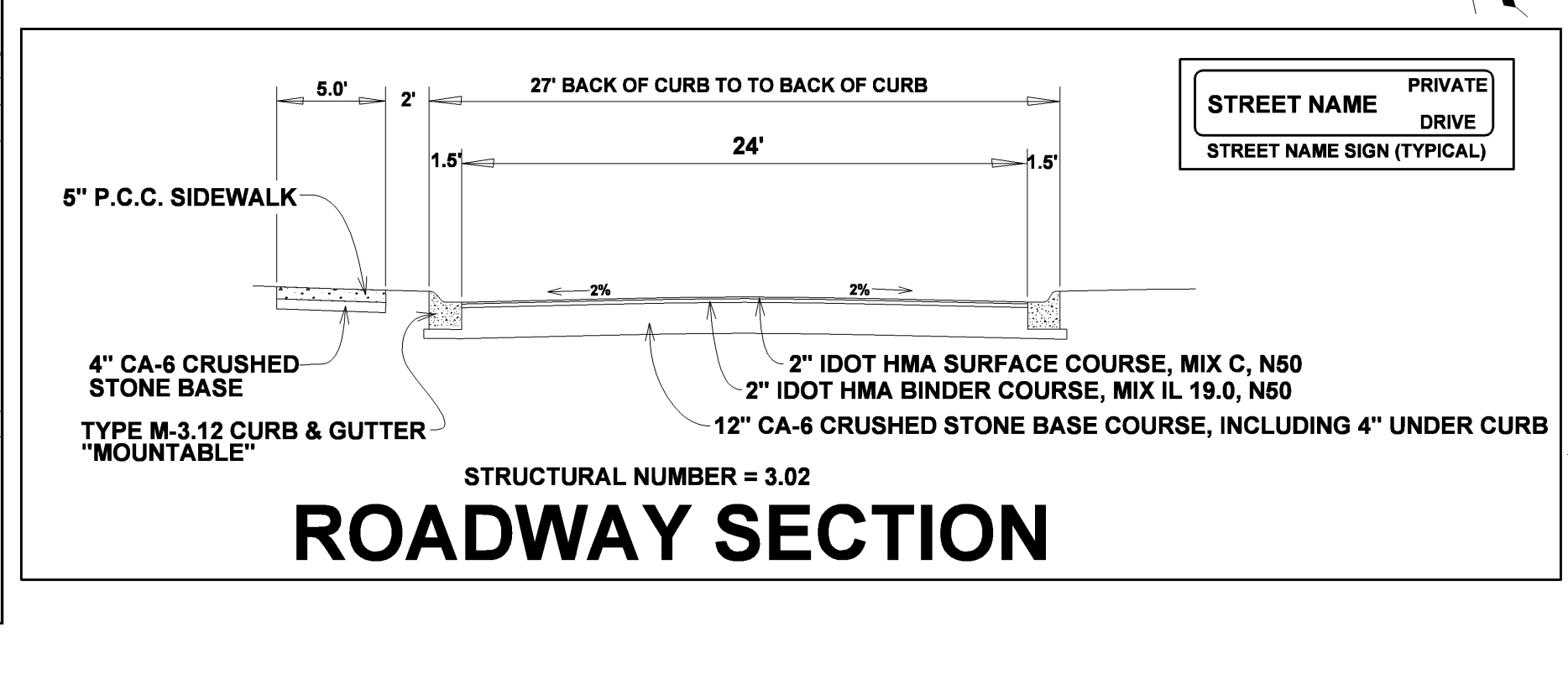
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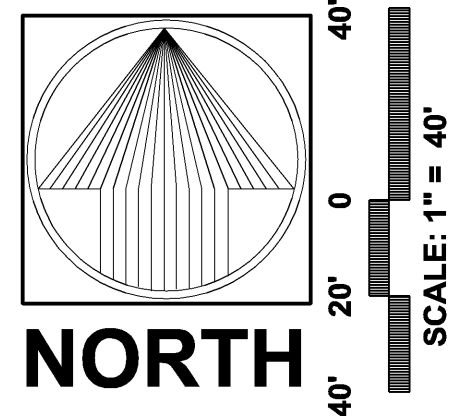
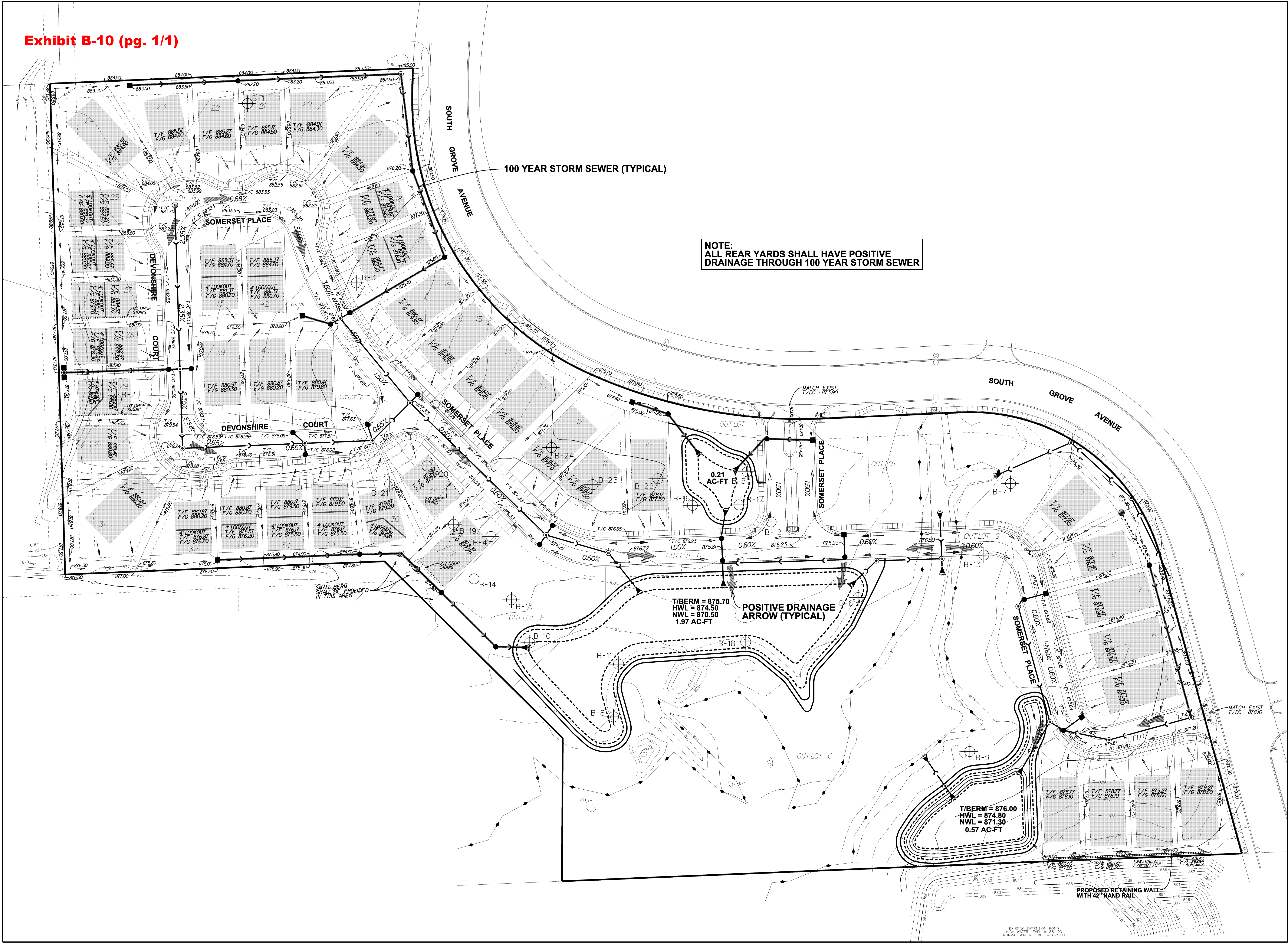
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