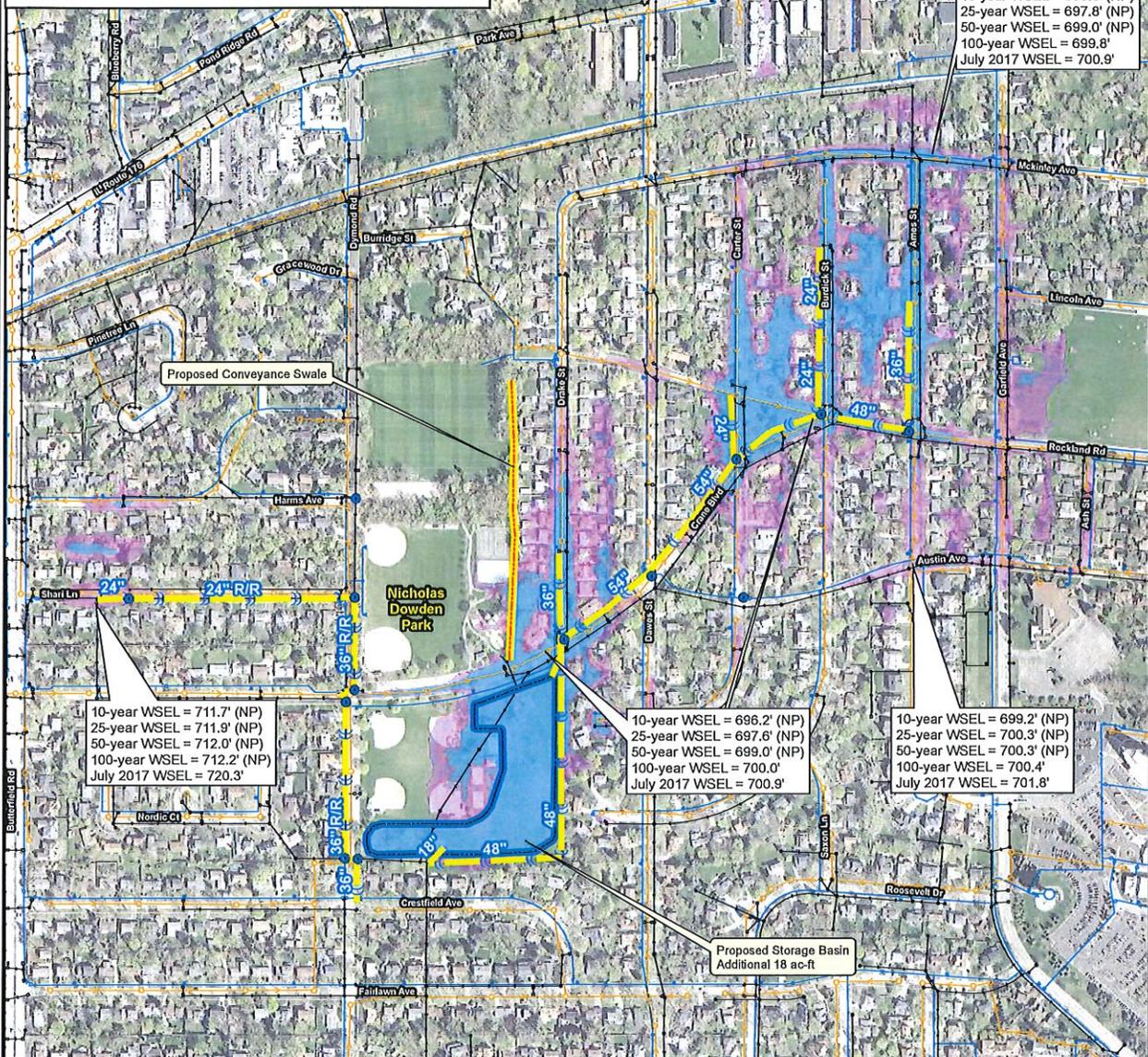
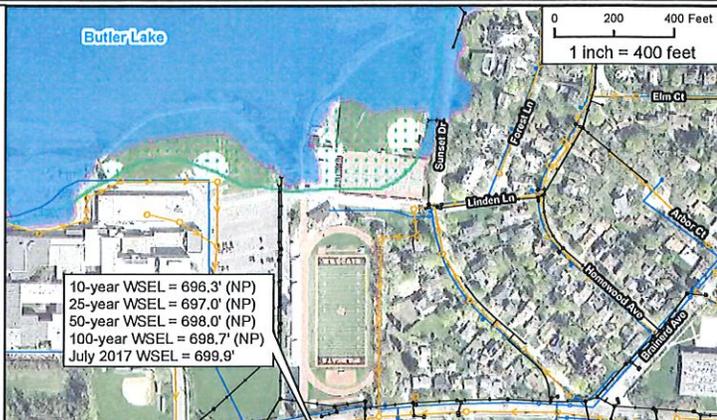


Legend

- Proposed Structure
- BAalt1A
- BAalt1(rr)
- Existing Storm Sewer (Approximate Location)
- Existing Sanitary Sewer (Approximate Location)
- Water Main (Approximate Location)
- 100-Year Inundation Area
- July 2017 Inundation Area
- 100-year Regulatory Floodplain
- Regulatory Floodway



Notes: All elevations are in the North American Vertical Datum of 1988 (NAVD 88).
 WSEL = Water Surface Elevation
 HWM = High Water Mark
 NP = No Ponding
 Inundation Area = Remaining Inundation Area shown with project

All proposed storm sewers are to be parallel unless noted as remove and replace.

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DSGN.	DRB	CHKD.	DTO
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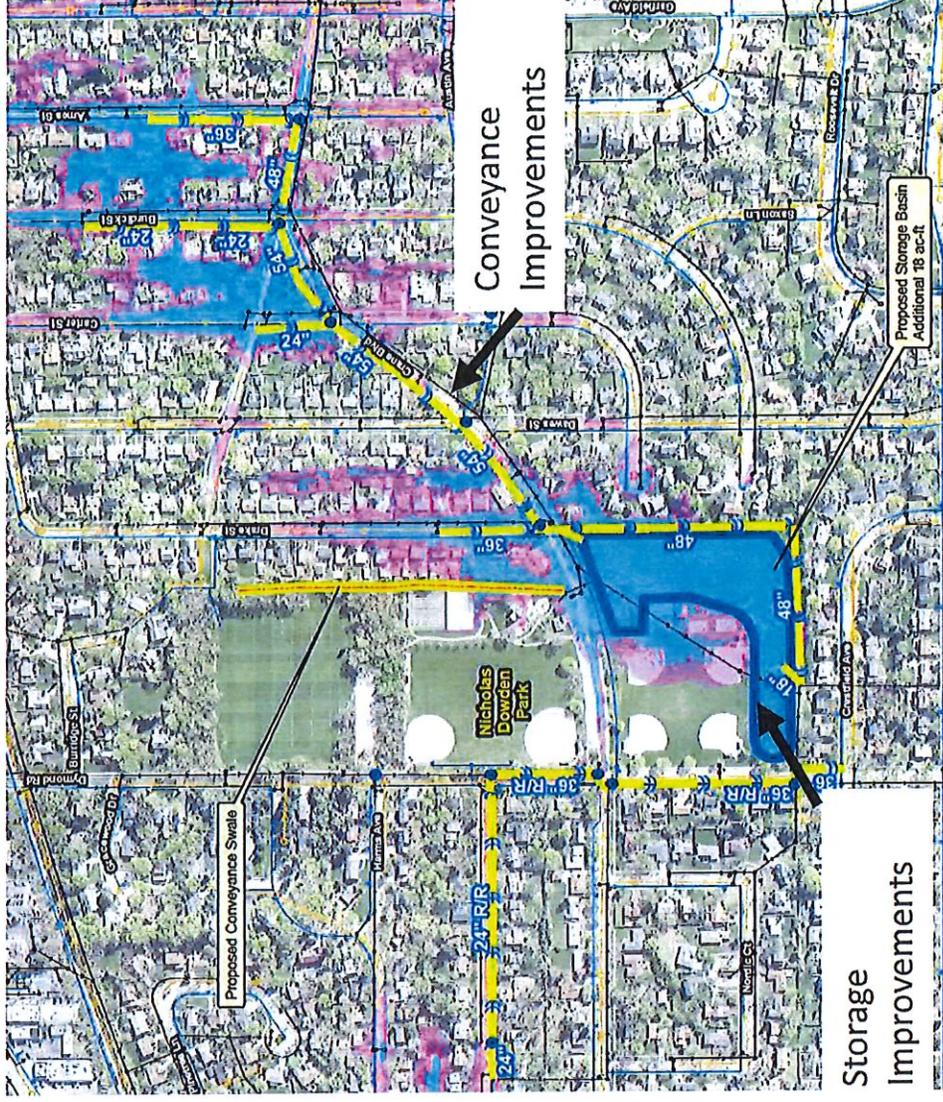
CLIENT	Village of Libertyville	PROJECT NO.	170001	
TITLE	Burdick & Ames (Area 3) Proposed Drainage Improvements: Alternative 1A (50-Year Level of Protection)		DATE	7/13/18
			EXHIBIT	



Drainage Improvements – Storage and Conveyance

- Conveyance Improvements
 - Need to transport water away from flooded homes
 - Overland conveyance is not an option
 - Need adequately sized storm sewers
 - Current Alternative 1A has 54-inch diameter storm sewers
- Storage Improvements
 - Safely store water release slowly to storm sewer system
 - Typically requires open spaces
 - Excavation needed to provide storage at correct elevation
 - Current Alternative 1A has 18 acre-ft of storage
 - Excavation depth = 5 feet
 - Avoids impacts to softball fields and shelters
 - Bottom of storage is sloped turf grass open space with underdrains
 - Tree impacts required

Alternative 1A Drainage Improvements



Revised Alternatives

Increase in Flood Storage at Dowden Park and Inflow Storm Sewers



Alternative 1B Drainage Improvements
27 acre-ft stormwater storage
1 softball field impacted



Alternative 1C Drainage Improvements
34 acre-ft stormwater storage
2 softball fields impacted