

**LEGEND**

	PROPERTY LINE		PROPOSED ASPHALT CONCRETE
	APPROXIMATE CIVIL LIMIT OF WORK		PROPOSED CONCRETE SIDEWALK
	EASEMENT OR SETBACK LINE		PROPOSED HEAVY DUTY CONCRETE
	EXISTING STORM DRAIN LINE		STAMPED AND/OR COLORED CONCRETE ADA PATH OF TRAVEL
	PROPOSED STORM DRAIN LINE		PROPOSED LANDSCAPE AREA
	FLOW LINE		PROPOSED BIORETENTION OR FLOW-THROUGH PLANTER
	PROPOSED CONTOUR		PROPOSED RIPRAP
	EXISTING CONTOUR		
	RIDGE LINE		
	GRADE BREAK LINE		
	PROPOSED STORM DRAIN INLET		
	PROPOSED STORM DRAIN MANHOLE		
	POINT OF OVERLAND RELEASE		
	STORM DRAIN FLOW ARROW		
	SURFACE DRAINAGE ARROW		

**UTILITY NOTES**

- ALL UTILITY PIPE LENGTHS ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY. PIPE LENGTHS ARE NOT SHOWN FOR BIDDING OR ESTIMATING PURPOSES.
- ALL DIMENSIONS ARE SHOWN FROM CENTER OF PIPE TO CENTER OF PIPE UNLESS OTHERWISE NOTED.

**EXISTING UTILITY NOTE**

EXISTING UTILITIES ARE SHOWN ON THESE PLANS AS THEY ARE BELIEVED TO EXIST BASED ON AVAILABLE RECORDS BY OTHERS. THE OWNER AND ENGINEER DO NOT ACCEPT RESPONSIBILITY FOR THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE, LOCATION, DEPTH, AND DIMENSION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UNDERGROUND SERVICE ALERT, POT-HOLING, AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AT ALL PROPOSED UTILITY CROSSINGS, AREAS OF EXCAVATION, AND WHERE CONSTRUCTION MAY BE AFFECTED BY THE LOCATION OR DEPTH OF THE UTILITY. DISCREPANCIES OR POTENTIAL CONFLICTS WITH PROPOSED IMPROVEMENTS MUST BE REPORTED TO AND RESOLVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

**ABBREVIATIONS**

BLDG	- BUILDING	HP	- HIGH POINT
C/L	- CENTERLINE	INV	- INVERT
CO	- CLEANOUT	LP	- LOW POINT
CONC.	- CONCRETE	MH	- MANHOLE
DI	- DRAIN INLET	N	- NORTH
E	- ELECTRIC OR EAST	P/L	- PROPERTY LINE
ESMT	- EASEMENT	R	- RIDGE OR RADIUS
FF	- FINISHED FLOOR	R/W	- RIGHT-OF-WAY
FG	- FINISHED GRADE	S	- SOUTH
FL	- FLOW LINE	SD	- STORM DRAIN
FS	- FINISHED SURFACE	SS	- SANITARY SEWER
FW	- FIRE WATER	TC	- TOP OF CURB
GB	- GRADE BREAK	VIF	- VERIFY IN FIELD
		W	- WATER OR WEST

**PROPOSED STORMWATER TREATMENT SUMMARY**

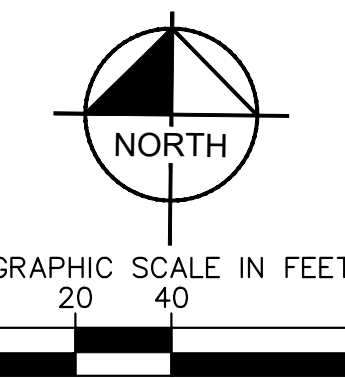
	TOTAL AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	REQUIRED TREATMENT AREA (SF) - IMP CALC	PROVIDED TREATMENT (SF)	TREATMENT TYPE
DMA 1	50,094	12,794	37,300	1,505	1,508	BIORETENTION
DMA 2	64,607	15,082	49,525	2,205	2,208	BIORETENTION
DMA 3	23,419	6,979	16,440	722	733	BIORETENTION
DMA 4	73,792	12,732	61,060	2,370	2,469	BIORETENTION
DMA 5	101,968	22,868	79,100	3,262	3,300	BIORETENTION
DMA 6	30,371	11,035	19,336	973	1,040	BIORETENTION
DMA 7	9,359	3,424	5,935	273	405	BIORETENTION
DMA 8	4,288	526	3,762	143	147	BIORETENTION
<b>TOTAL</b>	<b>357,898</b>	<b>85,440</b>	<b>272,458</b>	<b>11,453</b>	<b>11,810</b>	<b>N/A</b>

**IMPERVIOUS VS PERVIOUS AREA**

	TOTAL CONSTRUCTION AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	PERCENT PERVIOUS
EXISTING	357,898	36,778	321,120	89.7%
PROPOSED	357,898	272,458	85,440	23.9%

**SOURCE CONTROL BMPs**

BMP ID	BMP DESCRIPTION
SD-10	SITE DESIGN AND LANDSCAPE PLANNING
SD-13	STORM DRAIN SIGNAGE
SD-31	MAINTENANCE BAYS AND DOCKS
SD-32	TRASH ENCLOSURES
SC-41	BUILDINGS AND GROUNDS MAINTENANCE
SC-43	PARKING/STORAGE AREA MAINTENANCE
SC-71	PLAZA AND SIDEWALK CLEANING
SC-73	LANDSCAPE MAINTENANCE
SC-74	DRAINAGE SYSTEM MAINTENANCE



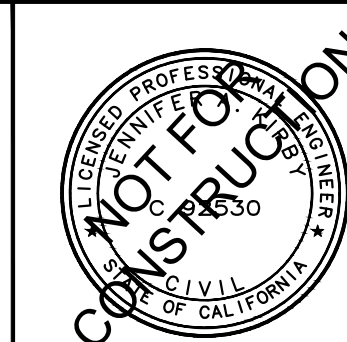
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KHA PROJECT  
097672126  
DATE  
02/17/2023  
SCALE AS SHOWN  
DESIGNED BY SAL  
DRAWN BY OKC  
CHECKED BY JAK

**BLUE OAKS SHOPPING CENTER**  
1480 BLUE OAKS BOULEVARD  
ROSEVILLE, CA 95747



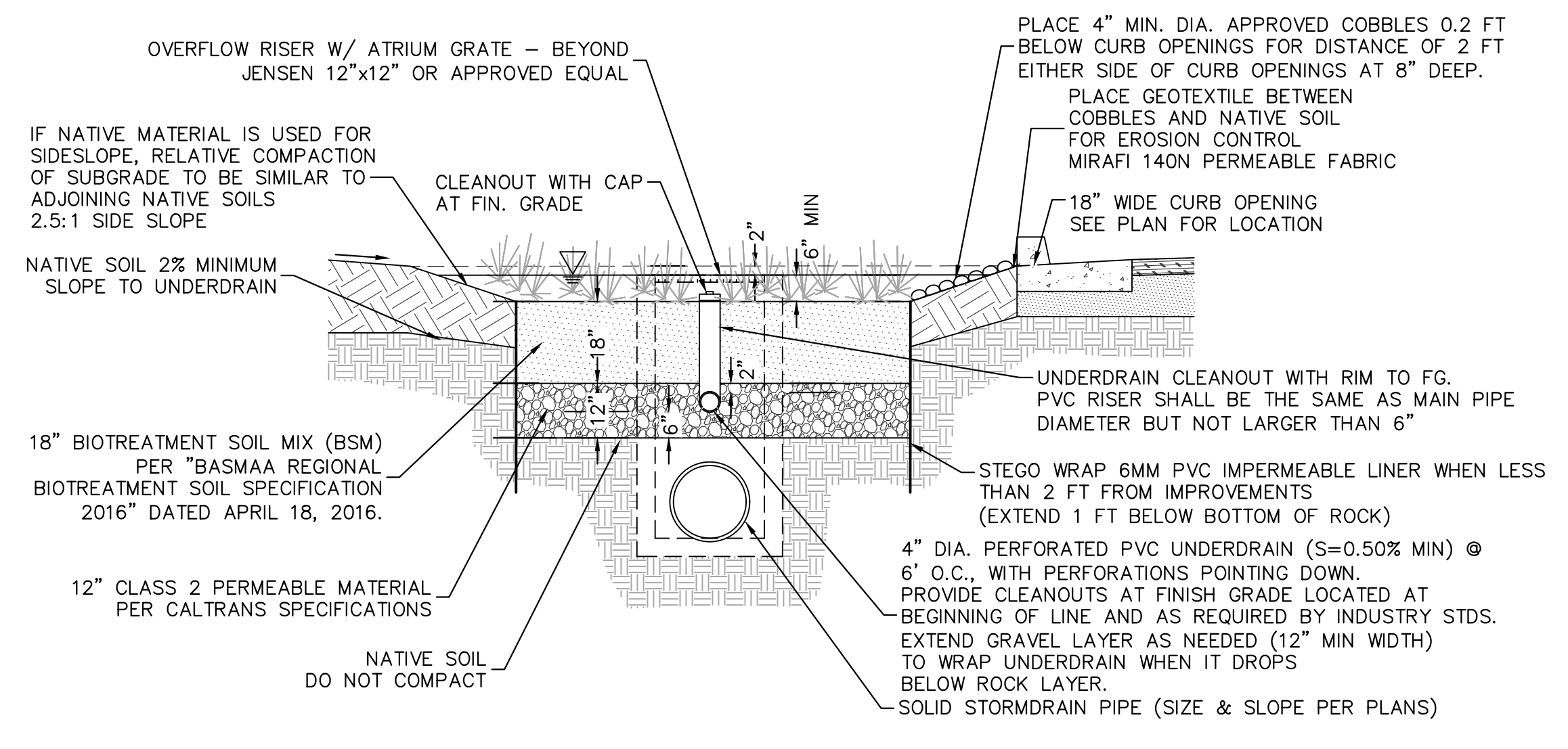
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SHEET NUMBER

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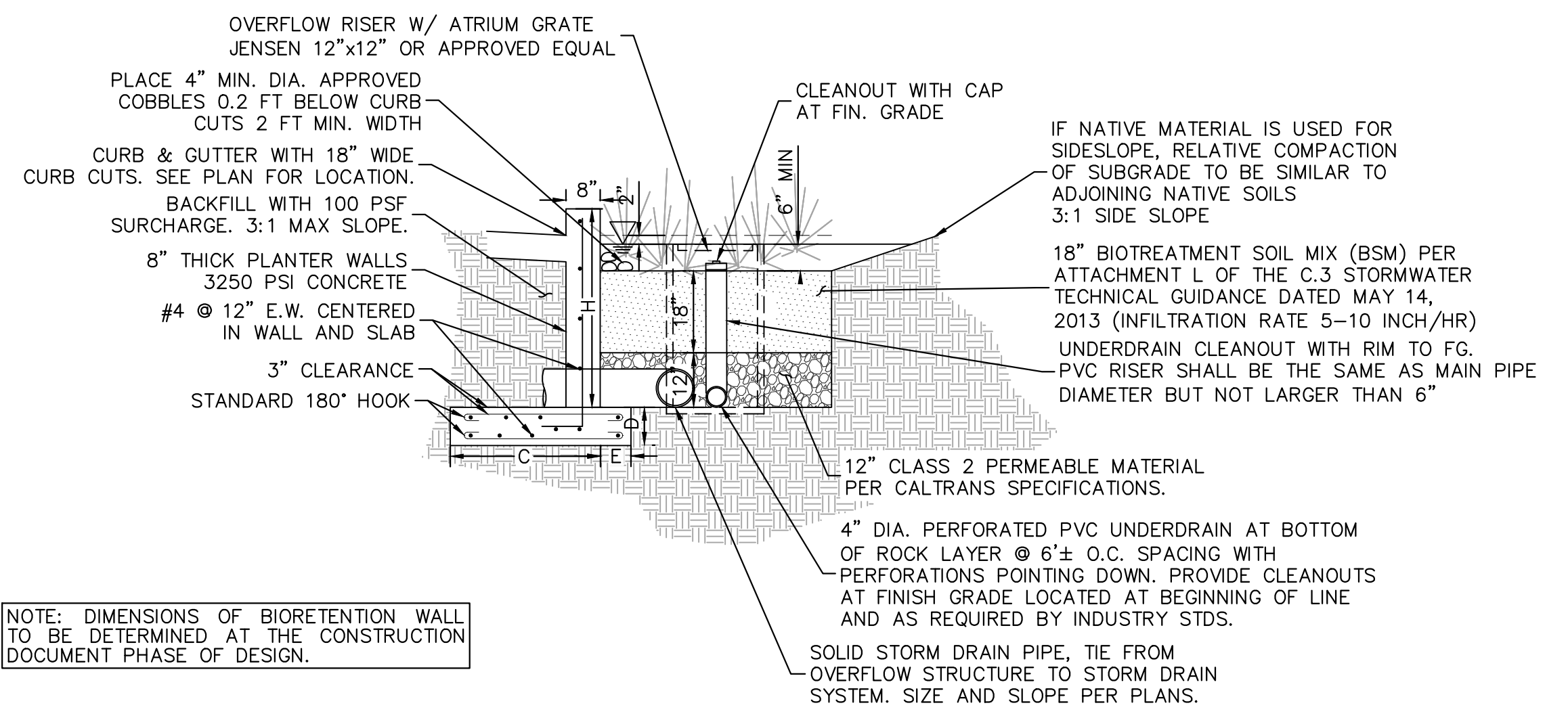
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**BIORETENTION SYSTEM**  
N.T.S.

1



NOTE: DIMENSIONS OF BIORETENTION WALL TO BE DETERMINED AT THE CONSTRUCTION DOCUMENT PHASE OF DESIGN.

**HYBRID BIORETENTION SYSTEM**  
N.T.S.

2

NOTE: DETAILS ARE PROVIDED FOR REFERENCE ONLY. DESIGN TO BE FINALIZED AT THE CONSTRUCTION DOCUMENT PHASE.

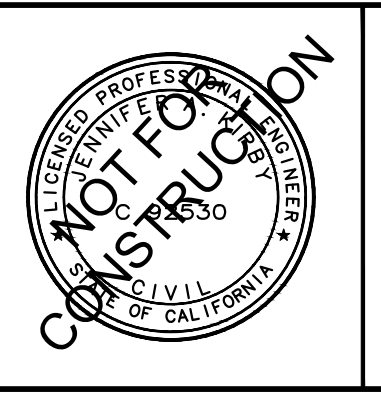
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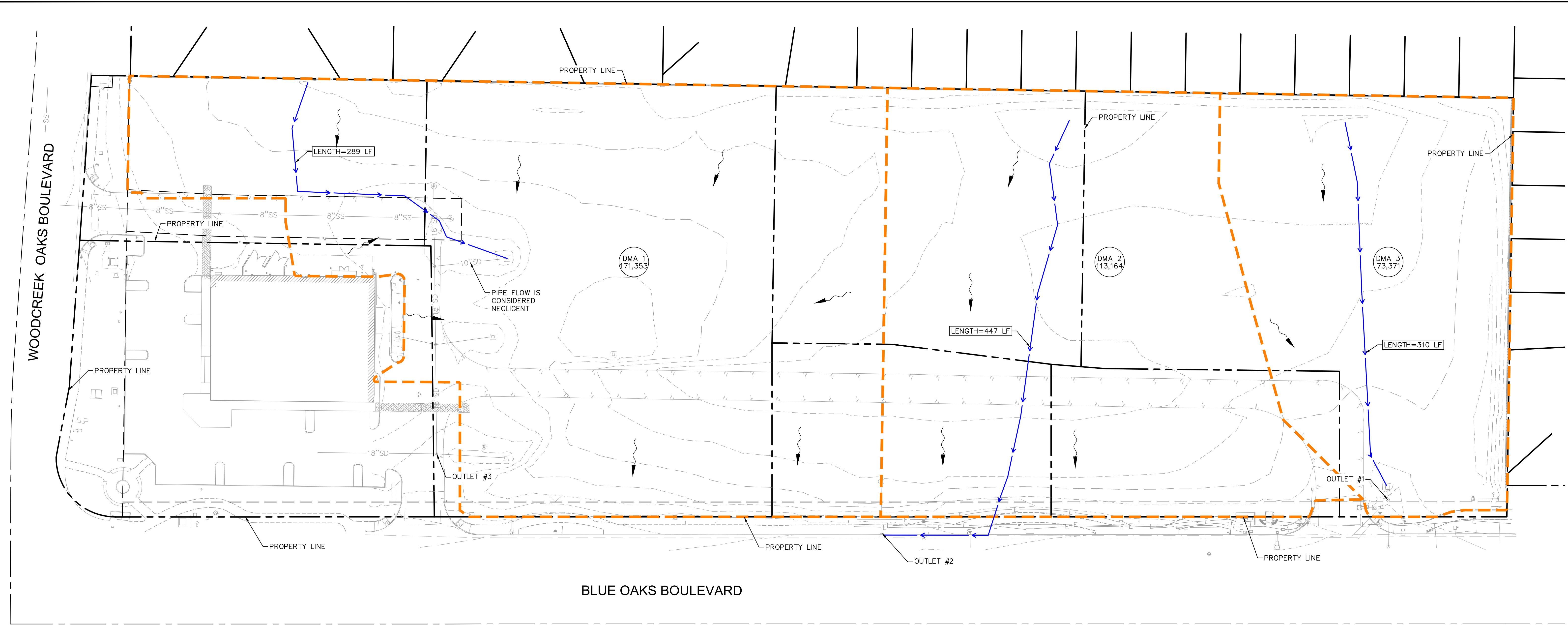
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PRELIMINARY STORMWATER DETAILS

SHEET NUMBER  
C4.1

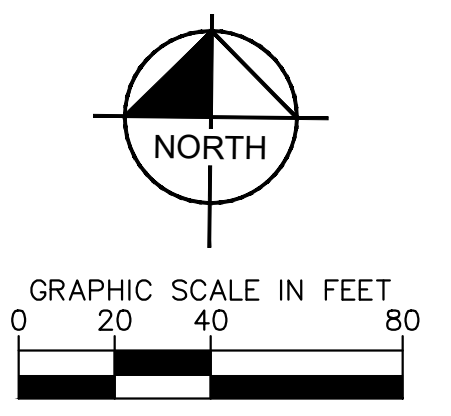
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**LEGEND:**

- CENTER LINE
- PROPERTY LINE
- EASEMENT LINE
- EXISTING STORM DRAIN LINE
- FLOW PATH LINE
- DMA BOUNDARY AREA
- FLOW DIRECTION

PRE-CONSTRUCTION DMA SUMMARY			
	TOTAL AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)
DMA 1	171,353	153,704	17,649
DMA 2	113,164	101,508	11,656
DMA 3	73,371	65,814	7,557
<b>TOTAL</b>	<b>357,888</b>	<b>321,026</b>	<b>36,862</b>



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CHECKED BY	JAK

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EXISTING HYDROLOGY

SHEET NUMBER  
**SHEET 1 OF 1**