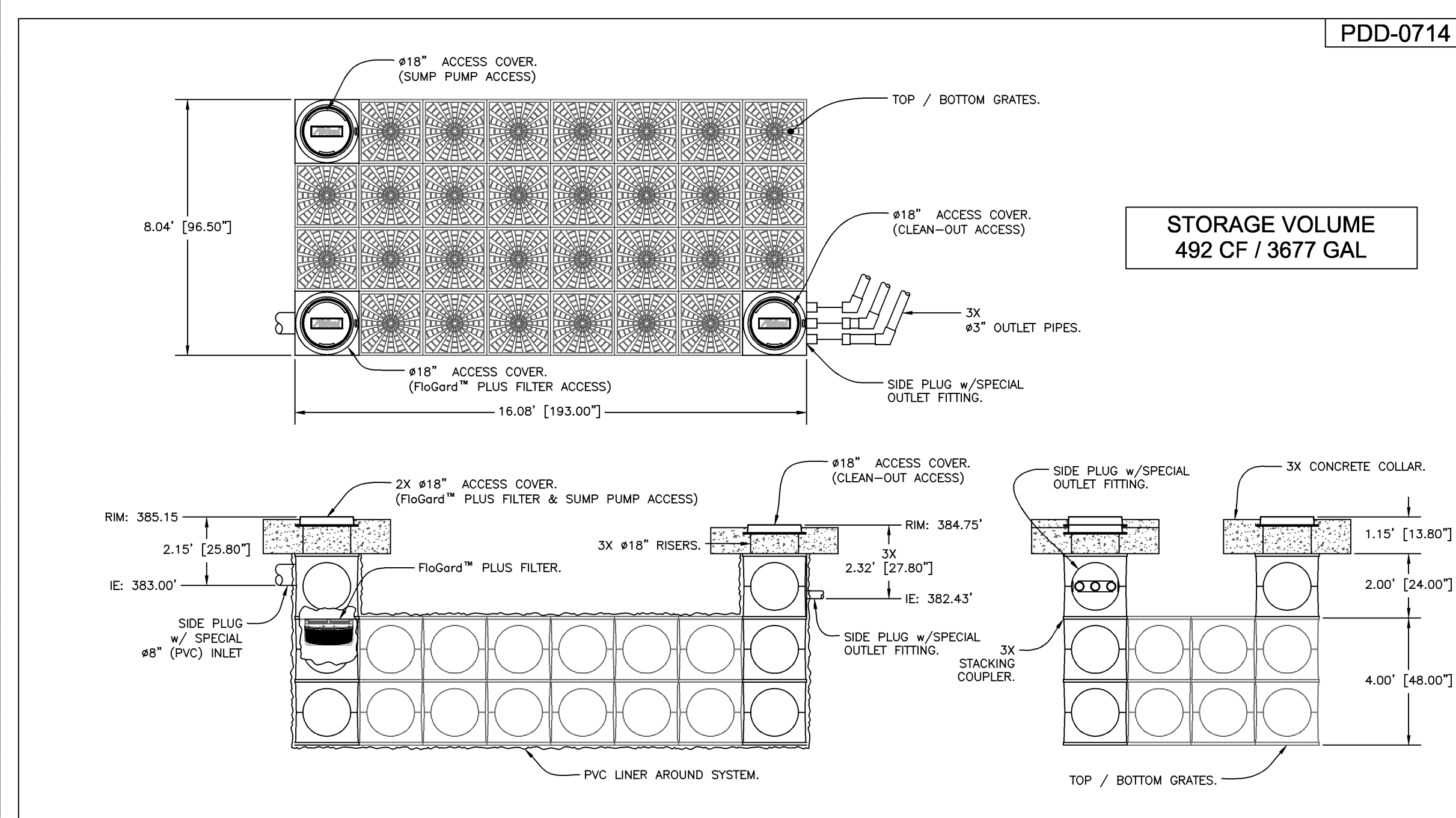


1  
10.2 NDS DRAINAGE BASIN SCALE: NTS



2  
10.2 KRI-STAR "CUDO" STORMWATER DETENTION SYSTEM SCALE: NTS

**ABBREVIATIONS**

AC	ASPHALT CONCRETE	LT	LEFT
AP	ANGLE CURVE	MAX	MAXIMUM
BC	BEGIN CURVE	MIN	MINIMUM
BW	BACK OF WALL	OFL	OVERFLOW DRAIN
CB	CATCH BASIN	PWMT	PAVEMENT
CL	CENTERLINE	R=	RADIUS
DTL	DETAIL	RIM	RIM ELEVATION
DS	DOWNSPOUT	RT	RIGHT
EC	END CURVE	S=	SLOPE
ELEV	ELEVATION	SD	STORM DRAIN
EX	EXISTING	SDCO	STORM DRAIN CLEANOUT
FD	FIRE DEPARTMENT	SSCO	SANITARY SEWER CLEANOUT
FL	FLOWLINE	STA	STATION
FT	FEET	TC	TOP OF CURB
FW	FACE OF WALL	TG	TOP OF GRAVEL
IN	INVERT	TP	TOP OF PAVEMENT
LF	LINEAR FEET	TW	TOP OF WALL
		TYP	TYPICAL

**LEGEND**

(E) EDGE OF PWMT	
FINISH GRADE SPOT ELEVATION	
(P) STORM DRAIN	
(P) SUBDRAIN	
(P) CATCH BASIN	
(P) BLOCK WALL	
(P) AC DRIVEWAY	
(P) CONCRETE PAVEMENT	



**UNDERGROUND NOTES**

- ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITIES OR FACILITIES TO REMAIN IN PLACE, WHETHER OR NOT SUCH LINES OR FACILITIES ARE SHOWN ON THESE PLANS, AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO. CONTRACTOR IS ADVISED TO CONTACT UNDERGROUND SERVICE ALERT (U.S.A.) AT 800.642.2444 AND THE AFFECTED UTILITY COMPANY FOR MARKING UNDERGROUND LINES PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL EXPOSE AND VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SANITARY AND STORM SEWERS, AND WATER LINES BEFORE CONSTRUCTING NEW FACILITIES.
- MATERIALS FOR PIPE, STORM WATER INLETS, AND CLEANOUTS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH APPLICABLE UBC AND UPC SECTIONS, AND THESE PLANS AND DETAILS SHOWN HEREON.
- STORM SEWER PIPE DESIGNATED "SD" SHALL BE PVC SDR 35 BELL AND SPIGOT GASKET, SMOOTH INTERIOR HDPE OR APPROVED EQUIVALENT.
- ALL DRAINAGE PIPE SHALL BE SHIPPED, STORED AND INSTALLED PER THE PIPE MANUFACTURER'S RECOMMENDATIONS.
- ALL CONCRETE DRAINAGE INLETS CALLED OUT ON THE PLANS SHALL BE CHRISTY BRAND PRECAST CONCRETE OR THE EQUIVALENT. ALL STRUCTURES SHALL BE STORED, HANDLED AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- STORMDRAIN TRENCH BACKFILL SHALL CONFORM TO THE CITY OF MONTE SERENO STANDARDS. JETTING OF BACKFILL MATERIALS TO ACHIEVE COMPACTION IS NOT ALLOWED.
- ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
- BASEMENT FLOOR DRAIN GRATES TO BE SET TO ELEVATION IN FIELD AS NEEDED TO ACHIEVE A DRAINED CONDITION, LOCATIONS OF DRAINS AND DRAIN LINES TO BE SHOWN ON PLUMBING PLAN. FLOOR DRAINAGE COLLECTION SYSTEM SHALL BE ROUTED TO THE SANITARY BASEMENT SUMP BASIN AND FROM THERE TO THE SITE SANITARY SEWER LATERAL.

**EARTHWORK AND GRADING NOTES**

- WORK SHALL CONSIST OF ALL CLEARING, GRUBBING, STRIPPING, PREPARATION OF LAND TO BE FILLED, EXCAVATION, SPREADING, COMPACTION AND CONTROL OF FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADES, AND SLOPES, AS SHOWN ON THE APPROVED PLANS AND AS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT.
- ALL GRADING OPERATIONS SHALL CONFORM TO SECTION 19 OF THE CALTRANS STANDARD SPECIFICATIONS, AND SHALL ALSO BE DONE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CITY OF MONTE SERENO. THE MOST STRINGENT GUIDELINE SHALL PREVAIL.
- A REPRESENTATIVE OF THE CITY OF MONTE SERENO AND/OR A SOILS ENGINEER SHALL BE ON SITE DURING GRADING OPERATIONS AND SHALL PERFORM ALL TESTING AS DEMAND NECESSARY. THE REPRESENTATIVE SHALL OBSERVE THE GRADING OPERATIONS FOR CONDITIONS THAT REQUIRE CORRECTION, AND IDENTIFY THOSE CONDITIONS WITH RECOMMENDED CORRECTIVE MEASURES TO THE CONTRACTOR.
- THE CONTRACTOR SHALL GRADE TO THE LINE AND ELEVATIONS SHOWN ON THE PLAN WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCE:
 

A) BUILDING PAD SUBGRADE	0.50"+	0.05"+
B) DRIVEWAY AREA AND PARKING SUBGRADE PREPARATION	0.05"+	0.05"+
- ALL EXISTING TRASH, DEBRIS, ROOTS, TREE REMAINS AND OTHER RUBBISH SHALL BE REMOVED FROM THE SITE SO AS TO LEAVE THE AREAS THAT HAVE BEEN DISTURBED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. NO BURNING SHALL BE PERMITTED.
- ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK DONE IN MONTE SERENO'S AND/OR LOS GATOS' PUBLIC RIGHT OF WAY. PLEASE APPLY WITH THE APPROPRIATE JURISDICTION FOR WORK PROPOSED IN THESE AREAS.

**ESTIMATED EARTHWORK VOLUMES RESULTING FROM SITE GRADING**

EXCAVATION: 10 CY  
 FILL: 5 CY  
 NET: 5 CY (EXCAVATION)

EARTHWORK VOLUMES SHOWN ARE FOR PERMITTING PURPOSES. EARTHWORK VOLUMES SHOWN ON THESE PLANS ARE TAKEN AS THE DIFFERENCE BETWEEN EXISTING GRADE AS SHOWN ON THE TOPOGRAPHIC SURVEY AND THE FINISH GRADES SHOWN HEREON, AND DO NOT INCLUDE FOUNDATION SPILLS, GRADING FOR POOL, GRADING FOR INSTALLATION OF STORMWATER DETENTION UNIT, OR REMOVAL OF EXISTING SITE PAVEMENT.

ACTUAL EARTHWORK VOLUMES MAY VARY. CONTRACTOR SHALL VERIFY THE EARTHWORK VOLUMES TO HIS SATISFACTION PRIOR TO CONSTRUCTION.

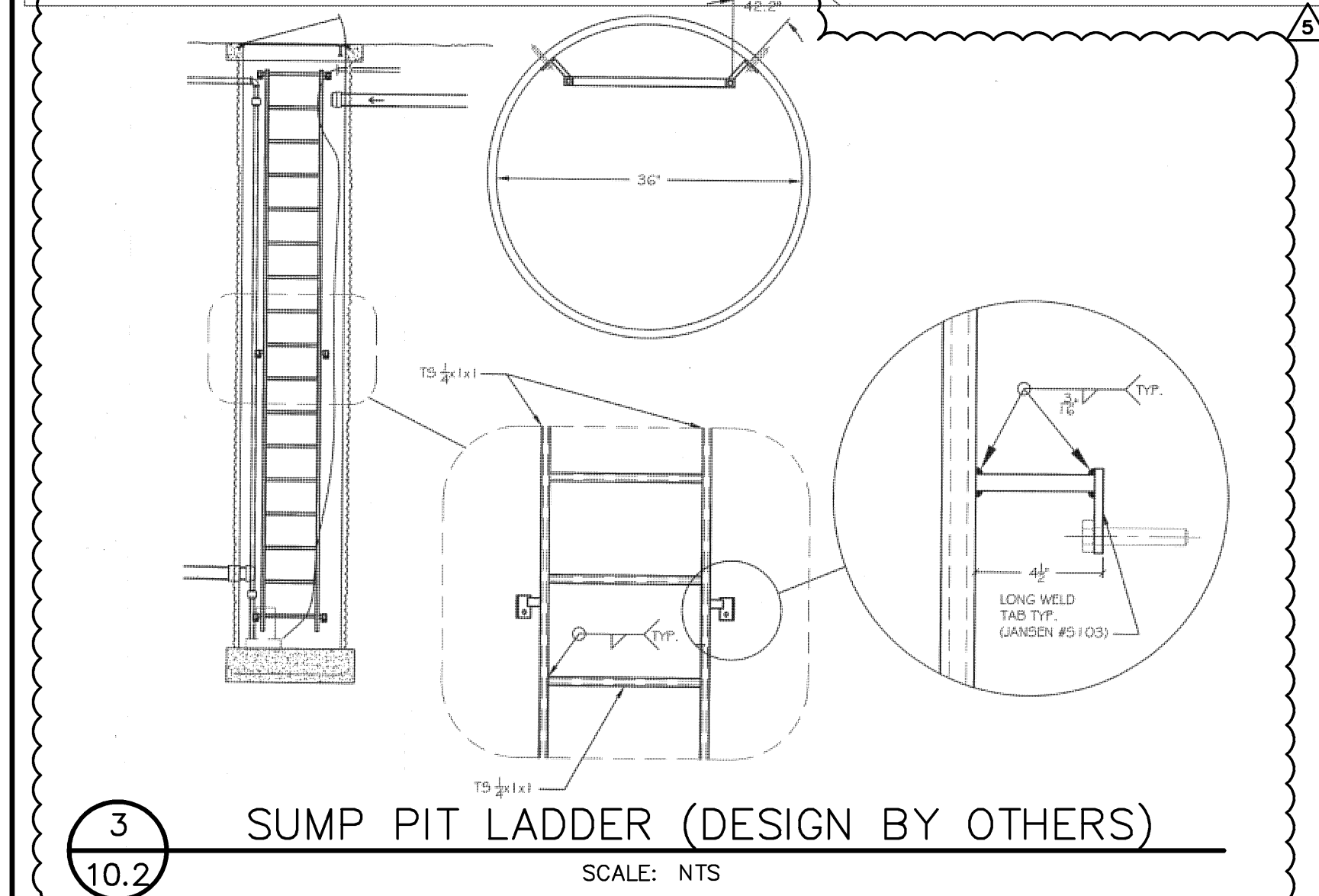
ALL EXCESS EXCAVATION (CUT) SHALL BE OFF-HAULED FROM SITE AND DISPOSED AT AN APPROPRIATE DISPOSAL SITE.

**TOPOGRAPHIC SURVEY**

THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PREPARED BY DUNBAR & CRAIG LAND SURVEYS. JOB NO. 08081, DATED APRIL 2008.

**DISCLAIMER**

THE DATA SET FORTH ON THIS SHEET IS THE PROPERTY OF BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS. IT IS AN INSTRUMENT OF SERVICE AND MAY NOT BE REPRODUCED, ALTERED, OR USED WITHOUT THE CONSENT OF THE ENGINEER. THE PROPER ELECTRONIC TRANSFER OF DATA SHALL BE THE USER'S RESPONSIBILITY WITHOUT LIABILITY TO THE ENGINEER. UNAUTHORIZED USE IS PROHIBITED.



3  
10.2 SUMP PIT LADDER (DESIGN BY OTHERS) SCALE: NTS

**SUMP DRAIN NOTES**

- SUMP BASIN TO BE CENTRAL PRECAST ROUND DROP INLET RGR 24 OR APPROVED EQUAL. PROVIDE 1-1/2" WEEP HOLE IN BOTTOM OF SUMP BASIN. SUMP BASIN SHALL SIT ON A MINIMUM OF 12" OF DRAIN ROCK.
- TWO SUMP PUMPS SHALL MANIFOLD IN TWO 2" PIPES DIRECTLY OUTSIDE OF SUMP. SUMP PUMPS SHALL BE SUBMERSIBLE PUMPS CAPABLE OF PUMPING 35 GPM AGAINST A TOTAL HEAD OF 15 FEET. PUMPS SHALL HAVE A 2" DISCHARGE LINE WITH A 2" CHECK VALVE INSTALLED NEAR EACH OF THE PUMP. SUGGESTED PUMP "GORMAN RUPP MODEL S1 1/2A3" WITH AUTOMATIC START STOP CONTROLS. PUMP SHALL BE PROVIDED WITH AUTOMATIC CONTROLS. PUMP SHALL START WHEN WATER LEVEL REACHES 13" AND SHALL TURN OFF WHEN WATER LEVEL REACHES 4.5". THE SECOND PUMP SHALL TURN ON IF WATER LEVEL REACHES 4.5" AND SHALL TURN OFF WHEN WATER LEVEL RETURNS TO 4.5". A HIGH WATER ALARM SHALL BE PROVIDED.
- CONTRACTOR SHALL MOUNT CONTROLS AT A LOCATION TO BE DETERMINED BY THE ARCHITECT. ELECTRICAL SERVICE CONDUIT SHALL BE PROVIDED TO THE SUMP FROM THE CONTROL PANEL.

APN 410-10-012			
5	REVISED 2/11/09 PER CITY OF MONTE SERENO COMMENTS		
4	REVISED 1/28/09 CHANGES TO DRAINAGE DESIGN DUE TO SITE CONDITIONS		
3	REVISED 12/23/08 ADD POINTS 100-109 POOL LOCATION & CONTROL		
2	REVISED 11/21/08 PER CITY OF MONTE SERENO COMMENTS DATED 11/17/08		
1	REVISED 9/10/08 PER CITY OF MONTE SERENO COMMENTS		
<b>BOWMAN &amp; WILLIAMS</b> CONSULTING CIVIL ENGINEERS 1011 CEDAR STREET SANTA CRUZ, CA 95060 (831) 426-3560		<b>GRADING &amp; DRAINAGE PLAN</b>  MEKECHUK/SINCLAIR RESIDENCE 17509 VIA SERENO MONTE SERENO, CA 95030	
REGISTERED CIVIL ENGINEER NO. 60443			
SCALE 1"=10'	DRAWN CRC	JOB NO. 24197	SHEET
DATE AUGUST 8, 2008	CHECKED RWH	INDEX SANTA CLARA	10.2
DESIGN CRC	DWG NAME 24197.DWG	FILE NO. 24197	