

Ventura County Community College District

PURCHASING DEPARTMENT

DATE: November 18, 2019

TO: All Bidders

FROM: Jo Nell Miller, Purchasing Specialist – jonellmiller@vcccd.edu

SUBJECT: Addendum 2 – Bid 594 Fire Technology Apparatus Building Rough Grading and

Storm Drain Improvements

This addendum is hereby made part of the Contract Documents to the same extent as though it was originally included therein and takes precedence over the original documents. The outdated pages must be replaced with any updated and/or changed pages when submitting your bid. Acknowledge receipt of all addenda on the Bid Form.

The bid opening remains on **Friday, November 22, 2019**. Bids must be received no later than **3:00 p.m**. at 761 E Daily Drive, Suite 200, Camarillo, CA 93010. Properly mark the outside of the exterior envelope on your submitted bid with the <u>Bid Number and Name</u> according to the requirements stated in the bid packet directions.

It is the responsibility of the Bidder to verify that their proposal has been received by the VCCCD Purchasing Department prior to the opening date. Verification of receipt can be made through the listed Purchasing Specialist.

The attached reduced <u>Academy Rough Grade Clouded Drawings</u> have been added to this project and is posted on our website in full size format.

The following SWPPP information is for your convenience.

"The Storm Water Pollution Prevention Plan can be downloaded from the State Waterboards website – SMARTS. Go to:

https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml and login under the Public User Menu. Then search for the WDID number for the project, 4 56C388153. This should take you to a page showing the project information, with links to the NOI, Attachments, and Receipt Letter. Select "View Attachments", and then click on the hyperlink for the SWPPP (dated 8/20/2019)."

The deadline for questions has passed. No further questions will be accepted prior to the bid opening.

End of Section

GENERAL GRADING NOTES:		ENGINEERED GRADI	ING INSPECTION CERTIFICATES
GRADING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE SOILS REPORT BY EARTH SYSTEMS PACIFIC, DATE JENSEN DESIGN AND SURVEY DATED OCT. 10, 2019 OR THERE AFTER.	ED JUNE 17, 2019 OR THERE AFTER AND WITH THE GRADING PLANS PREPARED BY	JOB ADDRESS OR LOT AND TRACT NO:	OXNARD COLLEGE FIRE ACADEMY, CAMARILLO, CA.
2. THE GRADING PERMIT AND WORK SHOWN IN THESE PLANS IS VALID ONLY TO THE EXTENT OF THE VENTURA COL BE REQUIRED BY OTHER REGULATORY AGENCIES OR INTERESTED PARTIES ARE THE RESPONSIBILITY OF THE PER			104 DURLEY AVE, CAMARILLO, CA
A PRECONSTRUCTION MEETING SHALL BE HELD AT THE SITE PRIOR TO ANY GRADING ACTIVITY OR LAND DISTURI DESIGN CIVIL ENGINEER. SOILS ENGINEER, OTHER JURISDICTIONAL AGENCIES WHEN REQUIRED.		ROUGH GRADING CE	<u>ERTIFICATION</u>
4. HEAVY EQUIPMENT NOISE & TRUCK DELIVERIES SHALL OCCUR DURING HOURS SPECIFIED BY THE ARCHITECT.		(A) BY SOILS ENGINEER	
5. NO GRADING ACTIVITY SHALL OCCUR IN ANY WETLAND, BLUE-LINE STREAM, RED-LINE CHANNEL, OR FLOODPLA JURISDICTION.	AIN WITHOUT THE PERMISSION OF THE ARCHITECT, OR OTHER AUTHORITIES HAVING	RECOMMENDATIONS THAT I HAVE MADE E	WORK INCORPORATES ALL RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL BASED ON FIELD INSPECTION OF THE WORK AND TESTING DURING GRADING. I FURTHER CERTIFY THAT WHERE THE REPORTS OF AN HIS SITE, HAVE RECOMMENDED THE INSTALLATION OF BUTTRESS FILLS OR OTHER SIMILAR STABILIZATION MEASURES, SUCH EARTHWORK
6. ALL RECOMMENDATIONS MADE BY THE SOILS ENGINEER (AND ENGINEERING GEOLOGIST, WHERE EMPLOYED) CO GRADING PLAN.	ONTAINED IN THE REPORTS AS APPROVED BY THE COUNTY SHALL BE A PART OF THIS	CONSTRUCTION HAS BEEN COMPLETED IN A LOT NOS:	ACCORDANCE WITH THE APPROVED DESIGN. , PARCEL 8
7. ALL DISTURBED SURFACES SUBJECT TO EROSION SHALL BE PROTECTED IN ACCORDANCE WITH THE VENTURA CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED FULLY FUNCTIONAL.	A COUNTYWIDE MUNICIPAL STORMWATER NPDES PERMIT. SEDIMENT AND EROSION		
ALL UNSUITABLE MATERIAL, I.E. LUMBER, LOGS, BRUSH, COMPRESSIBLE SOILS, OR ANY ORGANIC MATERIAL ENGINEERING GEOLOGIST FROM ALL AREAS TO RECEIVE FILL.	S OR RUBBISH, SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER AND	SEE REPORTS DATED:	
9. ALL AREAS TO RECEIVE FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER (AND ENGINEERING	,	FOR TEST DATA, RECOMMENDED ALLOWABI	LE SOIL BEARING VALUES & OTHER SPECIAL RECOMMENDATIONS.
EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR F 10. ALL MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SI'S SHALL BE APPROVED BY THE SOILS ENGINEER AND COUNTY PRIOR TO USE IN COMPACTED FILL. WHERE EXCAV BE BROKEN INTO SMALLER PARTICLE SIZES, BEFORE BEING USED AS FILL.	TE. MATERIALS SUCH AS CONSTRUCTION INERT DEBRIS, OR IMPORTED MATERIALS	SOILS ENGINEER(SIGNATURE	REG, NO DATE
11. THE SOILS ENGINEER SHALL DIRECT THE REMOVAL OF ANY EXISTING UNDERGROUND STRUCTURES SUCH AS SEP	PTIC TANKS, IRRIGATION LINES, ETC.		
12. ANY WATER WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE WATER RESOLABANDONMENT, OR DESTRUCTION.	URCES DIVISION, WATERSHED PROTECTION DISTRICT PRIOR TO ITS MODIFICATION,	(B) BY ENGINEERING GEOLOGIST	SEAL SEAL
13. ANY OIL WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE STATE OF CA MODIFICATION, ABANDONMENT, OR DESTRUCTION.	ALIFORNIA, DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES PRIOR TO ITS		ORK INCORPORATES ALL OF THE RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL SED ON FIELD INSPECTION OF THE WORK DURING GRADING.
14. ALL TEMPORARY EXCAVATED SLOPES OR BENCHES AND KEYS FOR BUTTRESS OR STABILIZATION FILLS MUST THAT ALL POTENTIAL PLANES OF FAILURE HAVE BEEN EXPOSED IN THE EXCAVATION AND WILL BE ADEQUA'S SUBMITTED BY THE CONSULTANTS PRIOR TO PLACING FILL.		LOT NOS: LOT C, PARCE	TL 8
15. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST (WHERE EMPLOYED) SHALL PROVIDE RECOMMENDATIONS MATERIAL IS EXPOSED AT THE TOP OF CUTS AND EXCAVATIONS.	AND APPROVE CORRECTIVE WORK TO INSURE SLOPE STABILITY WHERE UNSTABLE	ENGINEERING GEOLOGIST	CERT, NO. DATE
16. INTERIM SOILS AND GEOLOGIC REPORTS SHALL BE SUBMITTED TO THE COUNTY AS REQUIRED BY THE ARCHITECT			IGNATURE)
17. ROUGH GRADE SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL O PRIOR TO CALLING FOR BUILDING AND SAFETY INSPECTION.			SEAL
18. FINAL SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHW BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED WITH THE AS-BUILT PLAN		(C) BY CIVIL ENGINEER	
INSPECTION BY THE ARCHITECT. 19. IF PAD CERTIFICATION IS OLDER THAN 12 MONTHS AT THE TIME OF FINE GRADING, NEW CERTIFICATION MAY NEED	D BE ISSUED PER THE ENGINEERS DIRECTION.	SLOPES CORRECTLY GRADED AND LOCATE DRAINAGE SLOPES PROVIDED ON THE BUIL PREPARED RELATIVE TO THIS SITE, THE REC	TION OF ROUGH GRADING INCLUDING GRADING TO APPROXIMATE FINAL ELEVATIONS; PROPERTY LINES LOCATED AND STAKED, CUT AND FILL ED IN ACCORDANCE WITH THE APPROVED DESIGN; SWALES AND TERRACES GRADED READY FOR PAVING; BERMS INSTALLED; AND REQUIRED LDING PADS. I FURTHER CERTIFY THAT WHERE REPORT OR REPORTS OF AN ENGINEERING GEOLOGIST AND/OR SOILS ENGINEER HAVE BEEN COMMENDATIONS CONTAINED IN SUCH REPORTS HAVE BEEN INCORPORATED IN THE DESIGN.
		LOT NOS: LOT C, PARCE	L 8
EARTHWORK QUANTITIES		ONUL ENGINEED	REG. NO. DATE
CUT: 13750 CU. YDS. EXPORT: 0 CU. YDS. DISPOSAL SITE L	LOST TO SHRINKAGE	CIVIL ENGINEER(SIGNATU	5,112
FILL: 16500 CU. YDS IMPORT: 0 CU. YDS SOURCE	ON SITE		
THIS PROJECT INCLUDES POST CONSTRUCTION BMP'SYESNO		FINAL GRADING CER	SEAL RTIFICATION
	T ARE 1.0 ACRE OR GREATER IN DISTURBED AREA WILL REQUIRE A STORM WATER	BY CIVIL ENGINEER	KIII IOATION
POLLUTION PREVENTION PLAN (SWPPP) AND NOTICE OF INTENT (NOI) AS APPROVED BY THE STATE REGIONAL WATER	QUALITY CONTROL BOARD AS DESCRIBED ABOVE.	I CERTIFY TO THE SATISFACTORY COMPLE	ETION OF GRADING IN ACCORDANCE WITH THE APPROVED PLANS. ALL DRAINAGE DEVICES REQUIRED BY THE GRADING PERMIT, GRADING
AVERAGE NATURAL SLOPE IN THE AREA OF GRADING%		PROVISIONS HAVE BEEN MADE FOR DRAINA	BEEN INSTALLED. EROSION TREATMENT OF SLOPES AND IRRIGATION SYSTEMS (WHERE REQUIRED) HAVE BEEN INSTALLED. ADEQUATE AGE OF SURFACE WATERS FROM EACH BUILDING SITE AS OF THIS DATE.
THE TOTAL AMOUNT OF IMPERVIOUS AREA TO BE CONSTRUCTED AS PART OF THIS PROJECT ISSQ. FT.		LOT NOS: LOT C, PARCEL 8	
TOTAL PROPOSED LANDSCAPED AREASQ. FT. TOTAL NATIVE PLANTING LANDSCAPE AREA	% (PERCENT OF TOTAL LANDSCAPE AREA)		
LAND DEVELOPMENT & INSPECTION SERVICES MUST BE NOTIFIED TEN (10) WORKING DAYS PRIOR TO ANY EXPORT/IMP	ORT TO/FROM THE PROJECT SITE.	CIVIL ENGINEER(SIGNAT	REG. NO DATE TURE)
PERMITS			
COUNTY ENCROACHMENT PERMIT NO. DISTRICT WATERCOURSE PE	WATERSHED PROTECTION ERMIT NO.	GRADING CONTRAC	STOR CERTIFICATION SEAL
DATE	DATE	BY GRADING CONTRACTOR	
STATE ENCROACHMENT PERMIT NO. FLOODPLAIN DEVEL	OPMENT PERMIT	SOILS ENGINEER AND ENGINEERING GEOLG	IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE GRADING ORDINANCE, AND THE RECOMMENDATIONS OF THE CIVIL ENGINEER, DGIST. IT IS UNDERSTOOD THAT THIS CERTIFICATION INCLUDES ONLY THOSE ASPECTS OF THE WORK THAT CAN BE DETERMINED BY ME, AS A IOUT SPECIAL EQUIPMENT OR PROFESSIONAL SKILLS.
DATE	DATE	GRADING CONTRACTOR	LICENSE NO DATE
		(SIGNA	ATURE) THE GRADING WAS NOT DONE BY A LICENSED GRADING CONTRACTOR.
		INSTRUCTIONS. THE SWINER WAT SIGN IT IT	THE GRADING WAS NOT BOILE BY A EIGENGED GRADING CONTRACTOR.
LOCATION & VICINITY MAP	APPROVAL BY CONSUL	TANTS	
PRAIRIE DAILY	THIS GRADING PLAN IS ACCEPTABLE IN REGARD TO SOILS (AND GEOLOGIC - TO THE RECOMMENDATION OF THE SUPPORTIVE REPORT(S) DATED:	IF APPLICABLE) CONDITIONS AND CONFORMS	OWNER/APPLICANT
769 101 FWY STAGE TRAIL	SOILS ENGINEERING REPORTS:	20	V.C.C.C.D. 761 E DAILY DR.
SIFRAND SIFRAND	(SOILS ENGINEER SIGNATURE)		CAMARILLO, CA 93010 805-652-5500
VERDULERA ST			
Men	(PRINT NAME) (RCE NO.)		BENCH MARK DATA
CAMARILLO AIRPORT	ENGINEERING GEOLOGY REPORTS:	20	0.9 MILE EASTERLY ALONG PLEASANT VALLEY ROAD

PROJECT LOCATION (ENGINEERING GEOLOGIST SIGNATURE) DURLEY I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH THE ADOPTED COUNTY STANDARDS, AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN THE PROFESSIONAL ENGINEERS ACT. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS BY THE COUNTY OF VENTURA IS CONFINED TO A REVIEW PLEASANT VALLEY RD. ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF RECORD, OF MY RESPONSIBILITIES FOR PROJECT DESIGN. (CIVIL ENGINEER SIGNATURE) NOT TO SCALE (PRINT NAME) (RCE NO.)

RCE DATE APP. APP. DATE

FROM ITS INTERSECTION OF PLEASANT VALLEY ROAD AND EUBANKS STREET AT AN ENTRANCE TO CAMARILLO AIRPORT, 53.3 FEET EASTERLY FROM THE CENTER OF EUBANKS STREET, 4.0 FEET EASTERLY FROM A CORNER CHAIN LINK FENCE, 1.0 FOOT SOUTHERLY FROM A STEEL GUARD POST.

TOPOGRAPHY DATA

BASED ON TOPOGRAPHY SURVEY PERFORMED JULY,



1672 DONLON STREET VENTURA, CALIF. 93003 PHONE 805/654-6977 805/654-6979

API	PROVED:	COUNTY	OF	VENTURA	
DATE:		N/A			
BY:		N/A			
	DEVELOPM	IENT & INS	PECTI	ON SERVICES	;

COUNTY OF VENTURA PUBLIC WORKS AGENCY

GENERAL STORMWATER NOTES:

PERMIT ORDER NO. R4-2010-0108, AS AMENDED FROM TIME TO TIME.

THE LEGALLY RESPONSIBLE PERSON OF ANY PROPERTY IN WHICH GRADING ACTIVITIES OR OTHER SOIL DISTURBANCE ACTIVITIES ARE PERFORMED, INCLUDING PERMITTEE, SHALL COMPLY WITH THE LATEST AND APPLICABLE NPDES REQUIREMENTS. EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSTALLED BEFORE GRADING BEGINS. DURING GRADING ACTIVITIES, ALL BMP'S SHALL BE UPDATED AS NECESSARY TO PREVENT EROSION AND ANY ILLICIT DISCHARGE OF CONSTRUCTION RELATED POLLUTANTS. EROSION CONTROL BMP'S ARE LISTED ON COUNTY FORMS SW-1, SW-2, OR SW-HR.

- 1. **GENERAL CONSTRUCTION PERMIT.** PROJECTS THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE, OR THAT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE ARE REQUIRED TO OBTAIN COVERAGE UNDER NPDES CALIFORNIA STATEWIDE GENERAL CONSTRUCTION PERMIT NO. CAS000002, AS A NUMBER ASSIGNED TO THE PROJECT BY THE STATE WATER RESOURCES CONTROL BOARD, COMPLETED AND SIGNED NOTICE OF INTENT (NOI) AND PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE SUBMITTED AND IMPLEMENTED DURING ALL GRADING ACTIVITIES.
- 2. COUNTY'S STORM DRAIN SYSTEM. ILLICIT DISCHARGES INTO THE COUNTY'S STORM DRAIN SYSTEM AS A RESULT OF GRADING, CLEARING, CONSTRUCTION, DEMOLITION, AND OTHER SOIL DISTURBANCE ACTIVITIES ARE PROHIBITED.
- 3. INSPECTIONS. EROSION CONTROL AND PERMANENT STORMWATER TREATMENT BMP'S ARE SUBJECT TO INSPECTIONS AS REQUIRED BY THE
- 4. PUMPED WATER DISCHARGES. DISCHARGES OF PUMPED GROUND WATER REQUIRE A DISCHARGE PERMIT FROM THE STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (RWQCB),
- 5. SANITARY FACILITIES. PORTABLE SANITARY FACILITIES SHALL BE LOCATED ON RELATIVELY LEVEL GROUND AWAY FROM TRAFFIC AREAS, DRAINAGE COURSES, AND STORM DRAIN INLETS.
- 6. EMERGENCY WORK. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (OCTOBER 1ST TO APRIL 15TH). NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.

PROJECT BMP'S

THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE LATEST EDITION OF THE CASQA CONSTRUCTION BMP ONLINE HANDBOOK MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE PROJECT ENGINEER, QUALIFIED SWPPP DEVELOPER, PRACTITIONER OR THE BUILDING OFFICIAL). CERTAIN BMP'S ARE REQUIRED AS PART OF THE STORMWATER FORMS SW-1, SW-2 AND SW-HR. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE BMP'S LISTED HEREON, ARE IMPLEMENTED AND MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION. THE INSPECTOR OR BUILDING OFFICIAL MAY PERFORM UNANNOUNCED SITE INSPECTIONS TO ENSURE THAT THE PROJECT MAINTAINS THE BMP'S AS LISTED BELOW.

BMP DESCRIPTIONS AND DETAILS CAN BE OBTAINED FROM THE CALIFORNIA STORMWATER HANDBOOKS AT <u>WWW.CASQA.ORG</u>

COMPLETE CHECKLIST BELOW FOR APPLICABLE PROJECT BMP'S

EROSION CONTROL	NON-STORMWATER MANAGEMENT
EC1 – SCHEDULING	NS1 – WATER CONSERVATION PRACTICES
EC2 – PRESERVATION EXISTING VEGETATION	NS2 – DEWATERING OPERATIONS
EC3 – HYDRAULIC MULCH	NS3 – PAVING & GRINDING OPERATIONS
EC4 – HYDROSEEDING	NS4 – TEMPORARY STREAM CROSSING
EC5 – SOIL BINDERS	NS5 – CLEAR WATER DIVERSION
EC6 – STRAW MULCH	NS6 – ILLICIT CONNECTION/DISCHARGE
EC7 – GEOTEXTILES & MATS	NS7 – POTABLE WATER/IRRIGATION
EC8 – WOOD MULCHING	NS8 – VEHICLE & EQUIPMENT CLEANING
EC9 – EARTH DIKES & DRAINAGE SWALES	NS9 – VEHICLE & EQUIPMENT FUELING
EC10 - VELOCITY DISSIPATION DEV.	NS10 – VEHICLE & EQUIPMENT MAINTENANCE
EC11 – SLOPE DRAINS	NS11 – PILE DRIVING OPERATIONS
EC12 – STREAMBANK STABILIZATION	NS12 – CONCRETE CURING
EC14 – COMPOST BLANKETS	NS13 – CONCRETE FINISHING
EC15 – SOIL PREPARATIONIROUGHENING	NS14 – MATERIAL & EQUIPMENT USE
EC16 – NON-VEGETATED STABILIZATION	NS15 – DEMOLITION ADJACENT TO WATER
TEMPORARY SEDIMENT CONTROL	NS16 – TEMPORARY BATCH PLANTS
SE1 – SILT FENCE	WASTE MANAGEMENT & MATERIAL POLLUTION CONTRO
SE2 – SEDIMENT BASIN	WM1 – MATERIAL DELIVERY & STORAGE
SE3 – SEDIMENT TRAP	WM2 – MATERIAL USE
SE4 – CHECK DAM	WM3 – STOCKPILE MANAGEMENT
SE5 – FIBER ROLLS	WM4 – SPILL PREVENTION & CONTROL
SE6 – GRAVEL BAG BERM	WM5 – SOLID WASTE MANAGEMENT
SE7 – STREET SWEEPING AND VACUUMING	WM6 – HAZARDOUS WASTE MANAGEMENT
SE8 – SANDBAG BARRIER	WM7 – CONTAMINATION SOIL MANAGEMENT
SE9 – STRAW BALE BARRIER	WM8 – CONCRETE WASTE MANAGEMENT
SE10 – STORM DRAIN INLET PROTECTION	WM9 – SANITARY/SEPTIC WASTE MANAGEMENT
SE11 – ACTIVE TREATMENT SYSTEMS	WM10 – LIQUID WASTE MANAGEMENT
SE12 – TEMPORARY SILT DIKE	
SE13 – COMPOST SOCKS & BERMS	ADDITIONAL BMP'S SELECTED
SE14 – BIOFILTER BAGS	
WIND EROSION CONTROL	
WE1 – WIND EROSION CONTROL	
EQUIPMENT TRACKING	
TC1 – STABILIZED CONSTRUCTION ENTRANCE EXIT	
TC2 – STABILIZED CONSTRUCTION ROADWAY	
TC3 – ENTRANCE/OUTLET TIRE WASH	

** EXCAVATING SOILS MAY BE SIGNIFICANTLY ABOVE THE OPTIMUM MOISTURE CONTENT AND REQUIRE REMEDIATION PRIOR TO USE AS FILL MATERIAL. TYPICAL REMEDIAL MEASURES INCLUDE DICING AND AERATING THE SOILS DURING DRY WEATHER, MIXING THE SOIL WITH DRYER MATERIALS, REMOVING AND REPLACING THE SOILS WITH AN APPROPRIATE FILL MATERIAL, OR MIXING THE SOIL WITH AN APPROVED HYDRATING AGENT SUCH AS LIME OR CEMENT PRODUCT. THE GRADING CONTRACTOR SHOULD ANTICIPATE THAT SOME REMEDIATION OF THE EXCAVATED SOILS WILL BE REQUIRED AND PLAN FOR THIS ACCORDINGLY IN THEIR BID.

IT IS ANTICIPATED THAT PUMPING SOILS OR OTHERWISE UNSTABLE SOILS WILL BE PRESENT IN THE BOTTOM OF REMEDIAL EXCAVATIONS THAT WILL REQUIRE STABILIZATION PRIOR TO THE PLACEMENT OF FILL. STABILIZATION MEASURES MAY INCLUDE THE PLACEMENT OF 6 INCH MINUS ROCK (FLOAT ROCK) INTO EXCAVATION BOTTOM OR THE USE OF GEOTEXTILE FABRICS/GEOGRIDS IN COMBINATION WITH CRUSHED ROCK. THE GRADING CONTRACTOR SHOULD ACCOUNT FOR SOME SUBGRADE STABILIZATION IN HIS BID.

COUNTY OF VENTURA PUBLIC WORKS AGENCY **DEVELOPMENT & INSPECTION SERVICES** RAS5923 IMPROVEMENT PLAN COVER SHEET - ROUGH GRADE

VCCCD FIRE ACADEMY, CAMARILLO

CAMARILLO, CA.

DRAWING NO.

REV. OCT 2016

EVISIONS TO STORM DRAIN, BASIN, AND OUTLET STRUCTURE

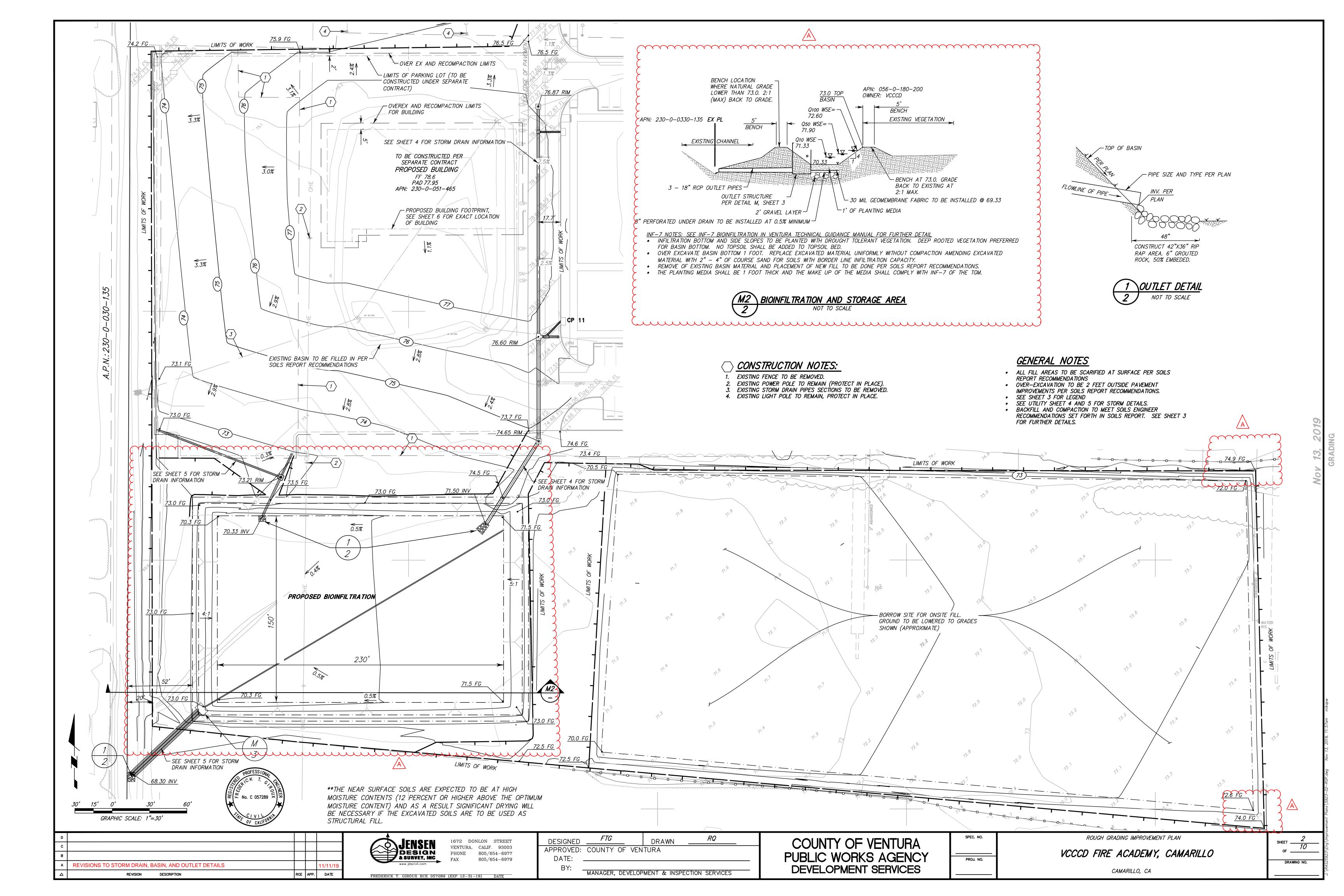
DESCRIPTION OF REVISION

LOT C, PARCEL 8 APN: 230-0-051-465

PROPOSED FIRE ACADEMY ADDITION

INDEX MAP INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION	DRAWING NO.
1	GRADING IMPROVEMENT PLAN COVER SHEET	1
2	ROUGH GRADING IMPROVEMENT PLAN	2
4	ROUGH GRADING IMPROVEMENT PLAN LEGEND	4
#	STORM DRAIN IMPROVEMENT PLAN	#
5	STORM DRAIN IMPROVEMENT PLAN	5
6	HORIZONTAL CONTROL IMPROVEMENT PLAN	6
#	IMPROVEMENT PLAN DETAILS	#
	APN: <i>APN:</i> 230-0-030-085	GP _



COMPACTION OF SUBGRADE TO MEET SOILS ENGINEER RECOMMENDATIONS SET FORTH IN SOILS REPORT.

• THE NEAR SURFACE SOILS ARE EXPECTED TO BE AT HIGH MOISTURE CONTENTS (12 PERCENT OR HIGHER ABOVE THE OPTIMUM MOISTURE CONTENT), AS A RESULT SIGNIFICANT DRYING WILL BE NECESSARY IF THE EXCAVATED SOILS ARE TO BE USED AS STRUCTURAL FILL.

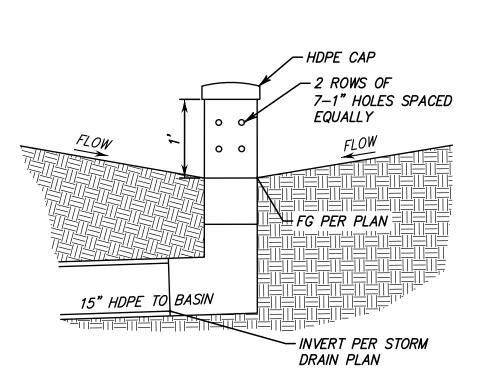
 BECAUSE OF THE ANTICIPATED WET SOIL CONDITIONS, ANY REMEDIAL EXCAVATIONS OR UTILITY TRENCH EXCAVATIONS, STABILIZATION OF THE

EXCAVATION BOTTOMS WILL BE REQUIRED PRIOR TO PLACING FILL. • NO COMPACTED FILL SHOULD BE PLACED UNLESS THE UNDERLYING SOIL HAS BEEN OBSERVED BY THE GEOTECHNICAL ENGINEER.

• ON-SITE SOILS MAY BE USED FOR FILL ONCE THEY ARE CLEANED OF ALL ORGANIC MATERIAL, ROCK, DEBRIS, AND IRREDUCIBLE MATERIAL LARGER THAN 6 INCHES. EXCAVATED SOILS ARE EXPECTED TO BE AT A HIGH MOISTURE CONTENT AND DRYING WILL BE NECESSARY BEFORE REPLACING AS COMPACTED BACKFILL.

 BACKFILL AROUND OR ADJACENT TO CONFINED AREAS MAY BE PERFORMED WITH A LEAN SAND/CEMENT SLURRY (MAXIMUM 28-DAY COMPRESSIVE STRENGTH OF 200 PSI) OR "FLOWABLE FILL" MATERIAL (A MIXTURE OF SAND/CEMENT/FLY ASH). THE FLUIDITY AND LIFT PLACEMENT THICKNESS OF ANY SUCH MATERIAL SHOULD BE CONTROLLED IN ORDER TO PREVENT "FLOATING" OF ANY "SUBMERGED" STRUCTURE. ALTERNATIVELY, A GRAVEL BACKFILL COULD BE USED, SUBJECT TO APPROVAL BY THE GEOTECHNICAL ENGINEER.

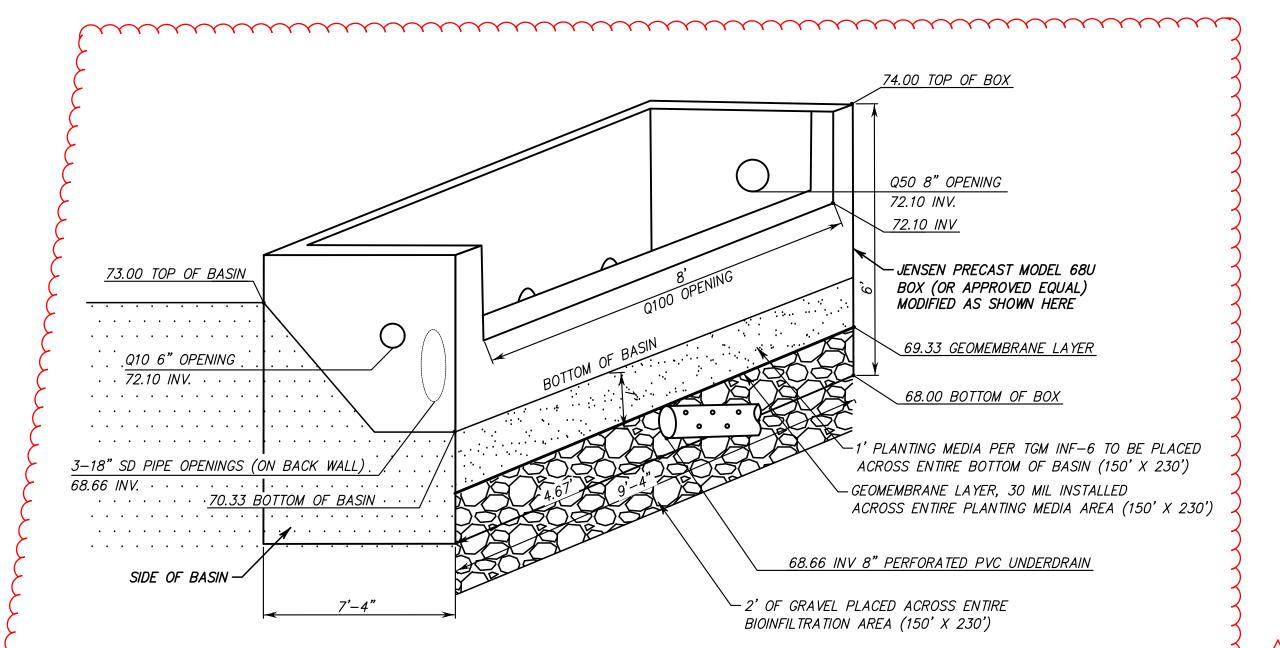
• IF PUMPING SOILS OR OTHERWISE UNSTABLE SOILS ARE ENCOUNTERED DURING THE OVER-EXCAVATION, STABILIZATION OF THE EXCAVATION BOTTOM WILL BE REQUIRED PRIOR TO PLACING FILL USING METHODS SET FORTH IN THE SOILS REPORT AND UNDER SUPERVISION OF THE GEOTECHNICAL ENGINEER.



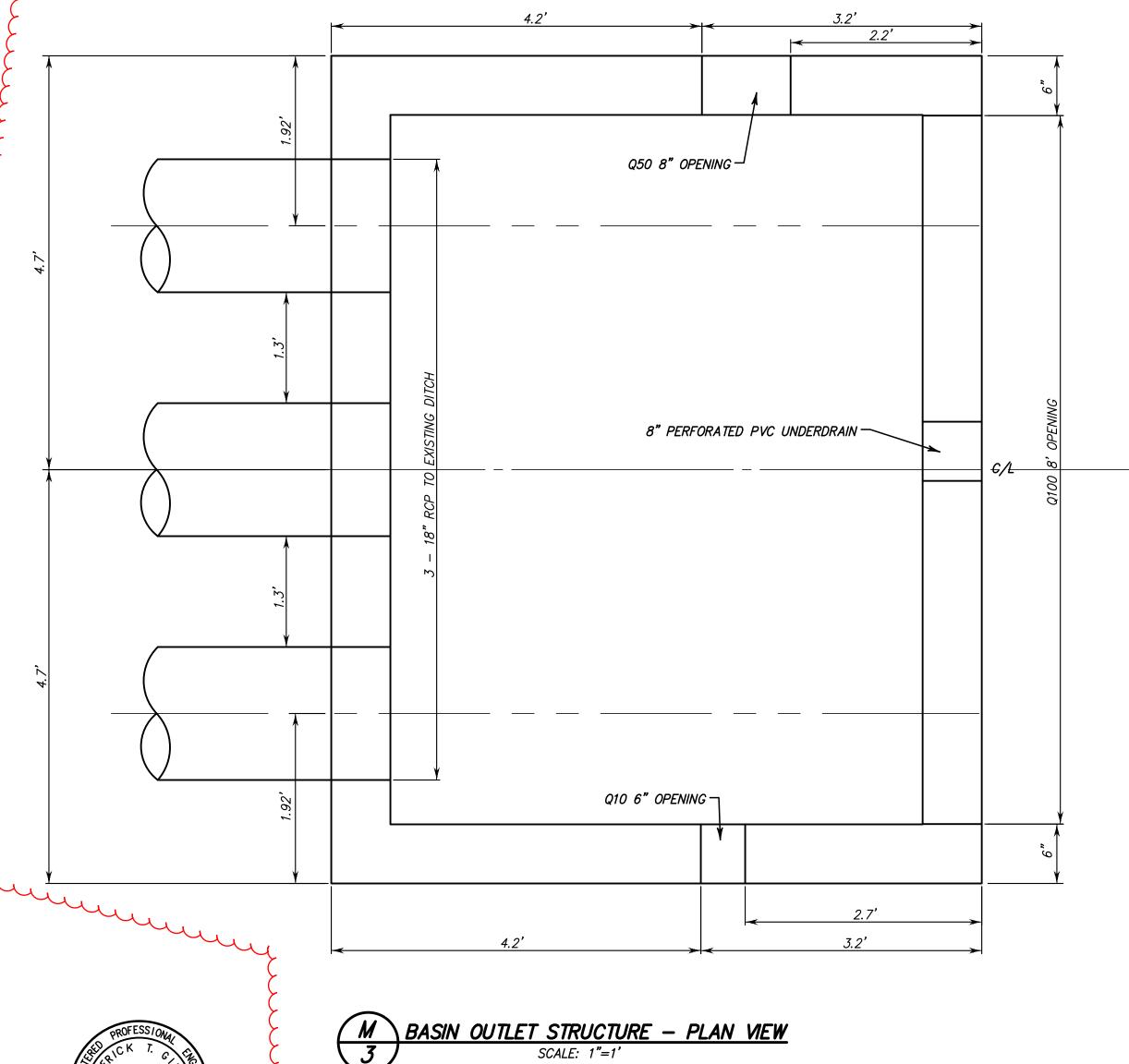


THE EARTHWORK SUMMARY IS PROVIDED AS A COURTESY ARE APPROXIMATE, BASED ON THE DIFFERENCES BETWEEN EXISTING GROUND ELEVATIONS AND ROUGH GRADE ELEVATIONS. QUANTITIES PROVIDED MAKE NO PROVISIONS FOR STRIPPING, OR OVEREXCAVATION. VARIABLES SUCH AS COMPACTION, SHRINKAGE AND THE CONTRACTORS METHOD OF OPERATION, WILL CAUSE THE VOLUME OF DIRT MOVED IN THE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE

EXISTING UTILITIES WERE LOCATED FROM BEST AVAILABLE INFORMATION. CONTRACTOR SHALL POTHOLE AND LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



BASIN OUTLET STRUCTURE



LEGEND & ABBREVIATIONS:

<u>ABBREVIATIONS</u>	<u>PROPOSED</u>		<u>EXISTING</u>	
AC = ASPHALT PAVEMENT	AC	AIR CONDITIONING PAD		
ASTM = AMERICAN SOCIETY for TESTING				± BLOCK WALL
& MATERIALS BC = BEGIN CURVE		CATCH BASIN	(10)	- CONTOUR LINE
BCR = BEGIN CURVE RADIUS		- CUT/FILL	•	
BLDG = BUILDING		— DAYLIGHT	6	FIRE HYDRANT
BLK = BLOCK BOP = BOTTOM OF PIPE			G	— GAS
BSW = BACK OF SIDEWALK	.,	— EASEMENT LINE		
CFS = CUBIC FOOT PER SECOND	x	- FENCE	—— 0/H E——	— OVERHEAD ELEC.
C/L = CENTERLINE C/L = CHAIN LINK	☆	FIRE HYDRANT	RW	— RECLAIMED WATER
C.L. = CHAIN LINK CB = CATCH BASIN		- FLOWLINE/SWALE		
CF= CURB FACE		■ RETAINING WALL — SAWCUT LINE	s	— SEWER
CMP = CORRUGATED METAL PIPE		— SAWCUT LINE SURFACE DRAIN W/ATRIUI	<i>M</i> * * · •	STREET LIGHT
C.O.C. = CITY OF CAMARILLO	-	SURFACE DRAIN WYATRION	W - # -	
SCO = SEWER CLEANOUT	∵	STREET LIGHT	•	STREET SIGN
CONC. =CONCRETE EC = END CURVE	-	STREET SIGN		≡ STORM DRAIN
ECR = END CURVE RADIUS		— STORM DRAIN		
EG = EXISTING GRADE	—— s ——	— SEWER	w	— WATER
EP = EDGE OF PAVEMENT		— SLOPE	8	WATER VALVE
FG = FINISHED GRADE FH = FIRE HYDRANT		— TRAFFIC SIGNAL CONDUIT		WAILK VALVE
FL = FLOW LINE	w	- WATER	T	— TELEPHONE
FPS = FEET PER SECOND			V	
FS = FINISHED SURFACE	<i>RW</i>	- RECYCLED WATER	x	— FENCE
G = GAS $GR = GRADE$		- PROPERTY LINE	 O	- SEWER MANHOLE
GR= GRADE BREAK		TRACT BOUNDARY	(00.00 TC)	
HGL = HYDRO GRADE LINE		- RIGHT OF WAY	(00.00 FL)	EXISTING
INV. = INVERT	\otimes	WATER VALVE	•	1
IRR = IRRIGATION WATER MAIN KHPS = KILOHERTZ PER SECOND		THRUST BLOCK		1
LAT = LATERAL	<u> </u>	WATER METER		
LF = LINEAR FEET	_			
LP = LOW POINT	©	WATER BLOW OFF		Ī
MH = MANHOLE MOC - MIDDLE OF CURVE	←	WATER AIR-VAC	<i>6"</i> E	Ī
MOC = MIDDLE OF CURVE PCC =POINT OF COMPOUND CURVE	•	WATER SAMPLING STATION	√ É ST	TEP IN FINISH FLOOR
P/L =PROPERTY LINE		SEWER LATERAL		Ī
PP = POWER POLE		SEWER MANHOLE		REE PLANTER
P.M.B. = PROCESSED MISCELLANEOUS BASE			//\- 	EE PLAIVIER
P.O.C. = POINT OF CONNECTION PUE = PUBLIC UTILITY EASEMENT		STORM DRAIN MANHOLE		
PRC = POBLIC UTILITY EASEMENT PRC = POINT OF REVERSE CURVE		STORM DRAIN JUNCTION S	STRUCTURE	
PVC = POLYVINYL CHLORIDE	H	0101111 2	11100.	
PVI = POINT OF VERTICAL INVERT		GRADE BREAK		
PVT. = PRIVATE PWA= PUBLIC WORKS AGENCY		ADA PATH OF TRAVEL		
PWA= PUBLIC WURKS AGENCY RCP = REINFORCED CONCRETE PIPE				
R/W = RIGHT OF WAY		DEEPENED BACK OF CURE	3	
$\dot{S}/W = SIDEWALK$	(1")	DENOTES KING LUMINAIRE		
SD = STORM DRAIN	→	LUMINAIRE 150 WATT @ IN	ITERSECTIONS A	.ND 100
SDR = STANDARD DIMENSION RATIO		WATT FOR ALL OTHERS		
SS = SANITARY SEWER S.P.P.W.C. = STANDARD PLANS	ODS	DOWN SPOUTS		
FOR PUBLIC WORKS CONSTRUCTION	[WITCO DED DIA	· · · · · · · · · · · · · · · · · · ·
ST = STREET LIGHT		ASPHALT PAVEMENT THICK	(NESS PER FLAI	N (HEAVY IKAFFIC)
TC = TOP OF CURB		TYPE II SLURRY SEAL		Ī
TF = TOP OF FOOTING		TREE		Ī
TG = TOP OF GRATE TOP = TOP OF PIPE				Ī
TW = TOP OF WALL		ABBREVIATIONS CONTI	7 <u>NUED</u>	
TRW = TOP OF RETAINING WALL		A.B. = AGGREGATE BASE		
VC = VERTICAL CURVE		A.P. = ANGLE POINT		
VCP = VITRIFIED CLAY PIPE VP II F - PIIE TO VERIZON		C.A.B. = CRUSHED AGGREC	GATE BASE	
V.P.U.E.= PUE TO VERIZON W.S.E.L. = WATER SURFACE ELEVATION		RW = RECYCLED WATER D.I. = DUCTILE IRON		
W.S.E.L. = WATER SURFACE ELEVATION WM = WATER METER		O.C. = ON CENTER		
*****		PA = PLANTER AREA		I
WV = WATER VALVE L.O.S. = LINE OF SIGHT		VCWPD = VENTURA COUNT	· · · · · · · · · · · · · · · · · ·	

NOTICE TO THE CONTRACTOR

AND CONVENIENCE TO THE CONTRACTOR. QUANTITIES SHOWN FIELD TO DEVIATE FROM THE CALCULATED QUANTITIES. IT IS EARTHWORK REQUIREMENTS TO ROUGH GRADE THIS JOB.

CAUTION:

** CONTRACTOR SHALL VERIFY BUILDING SLAB SECTIONS WITH SOILS REPORT AND STRUCTURAL DRAWINGS AND NOTIFY CIVIL ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY.



DESIGN & SURVEY, INC

FREDERICK T. GIROUX RCE 057289 (EXP 12-31-19) DATE

1672 DONLON STREET VENTURA, CALIF. 93003

PHONE 805/654-6977

805/654-6979

M	BASIN OUTLET STRUCTURE - PLAN	<u>VIEW</u>
3	SCALE: 1"=1'	

DESIGNED	<i>FTG</i>	DRAWN	RQ	COUNTY O
APPROVED:	COUNTY OF VEN	TURA		
DATE: . BY: .				PUBLIC WOF
טו	MANAGER, DEVELOP	MENT & INSPE	CTION SERVICES	

OF VENTURA PRKS AGENCY DEVELOPMENT SERVICES

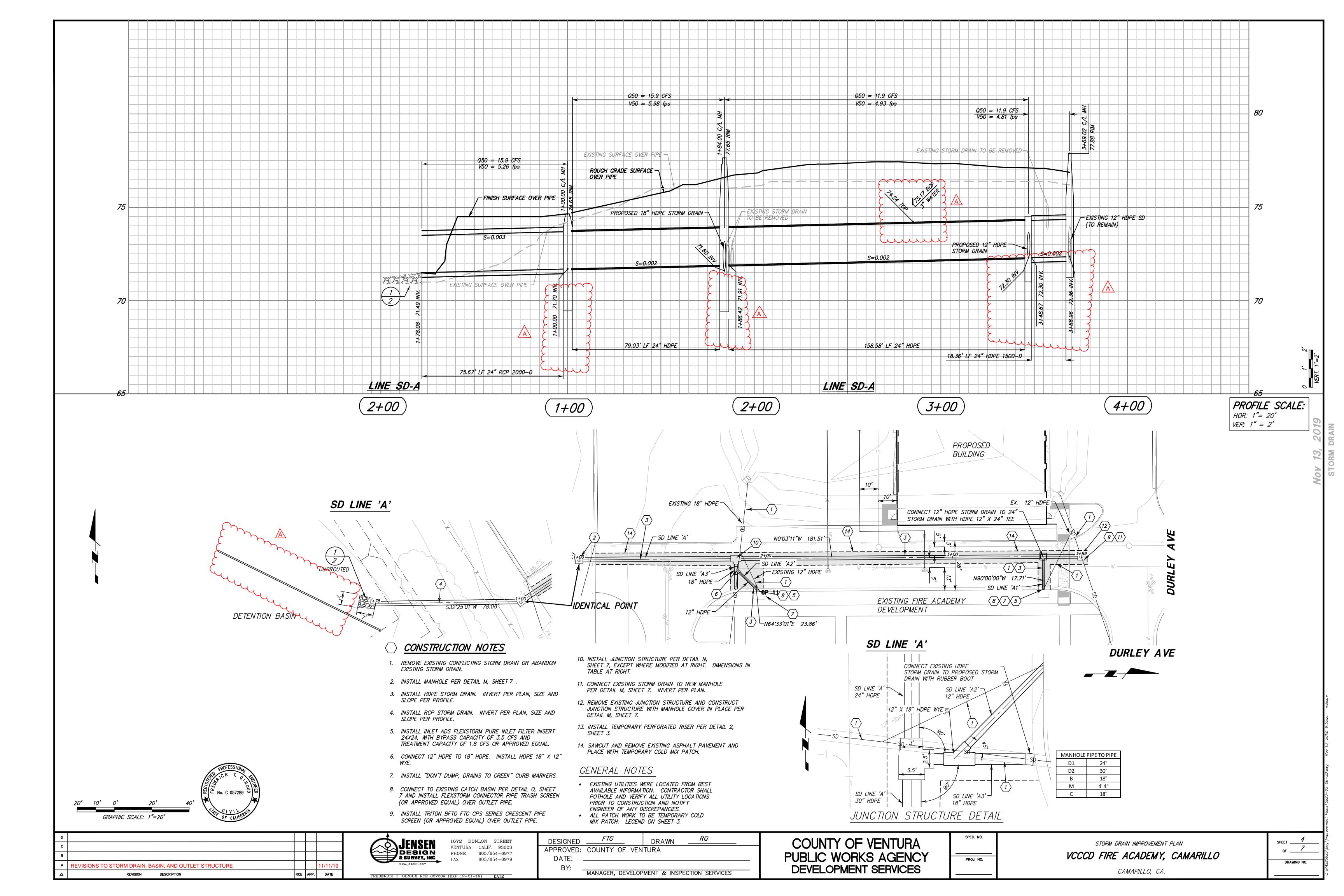
PROJ. NO.

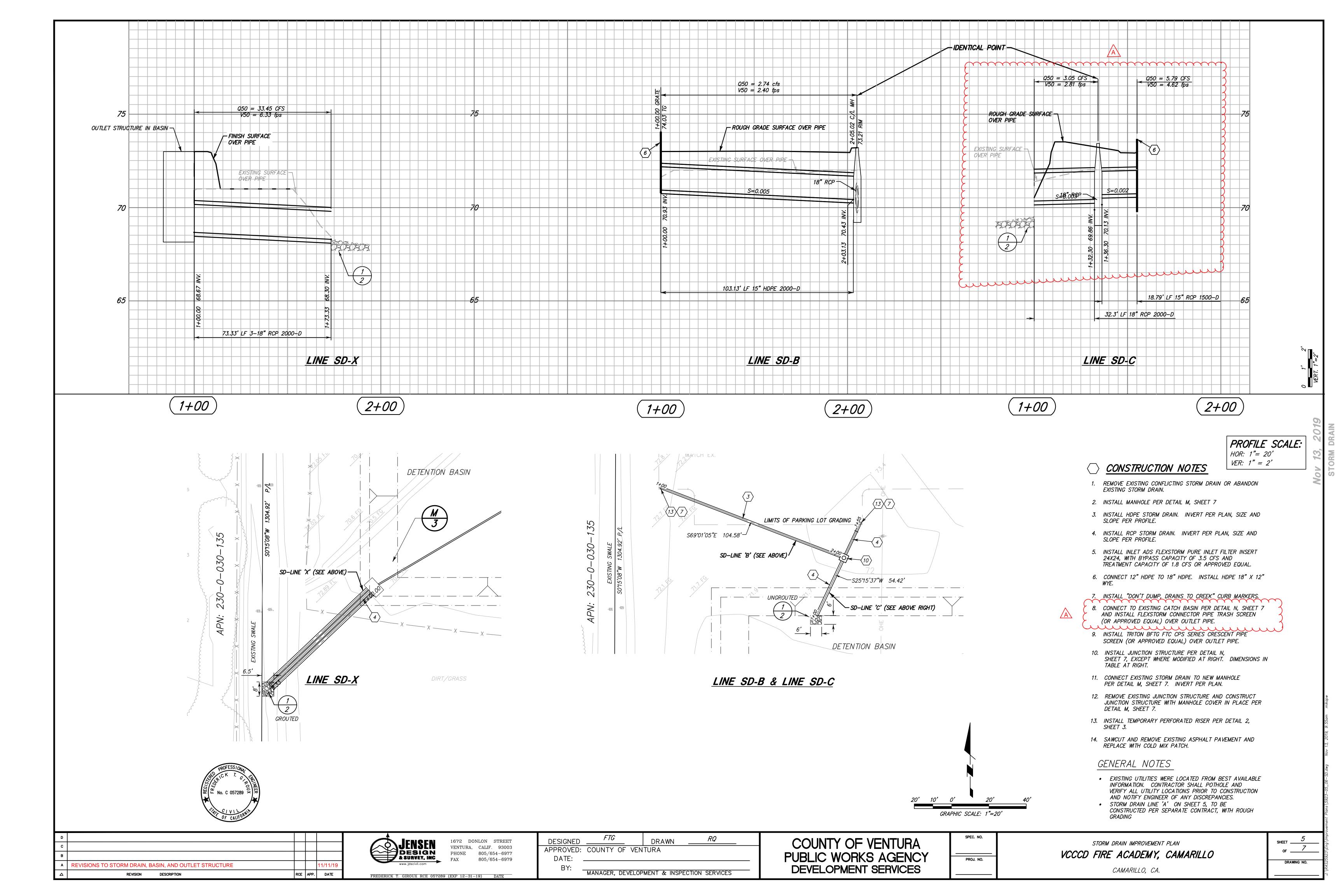
ROUGH GRADING IMPROVEMENT PLAN

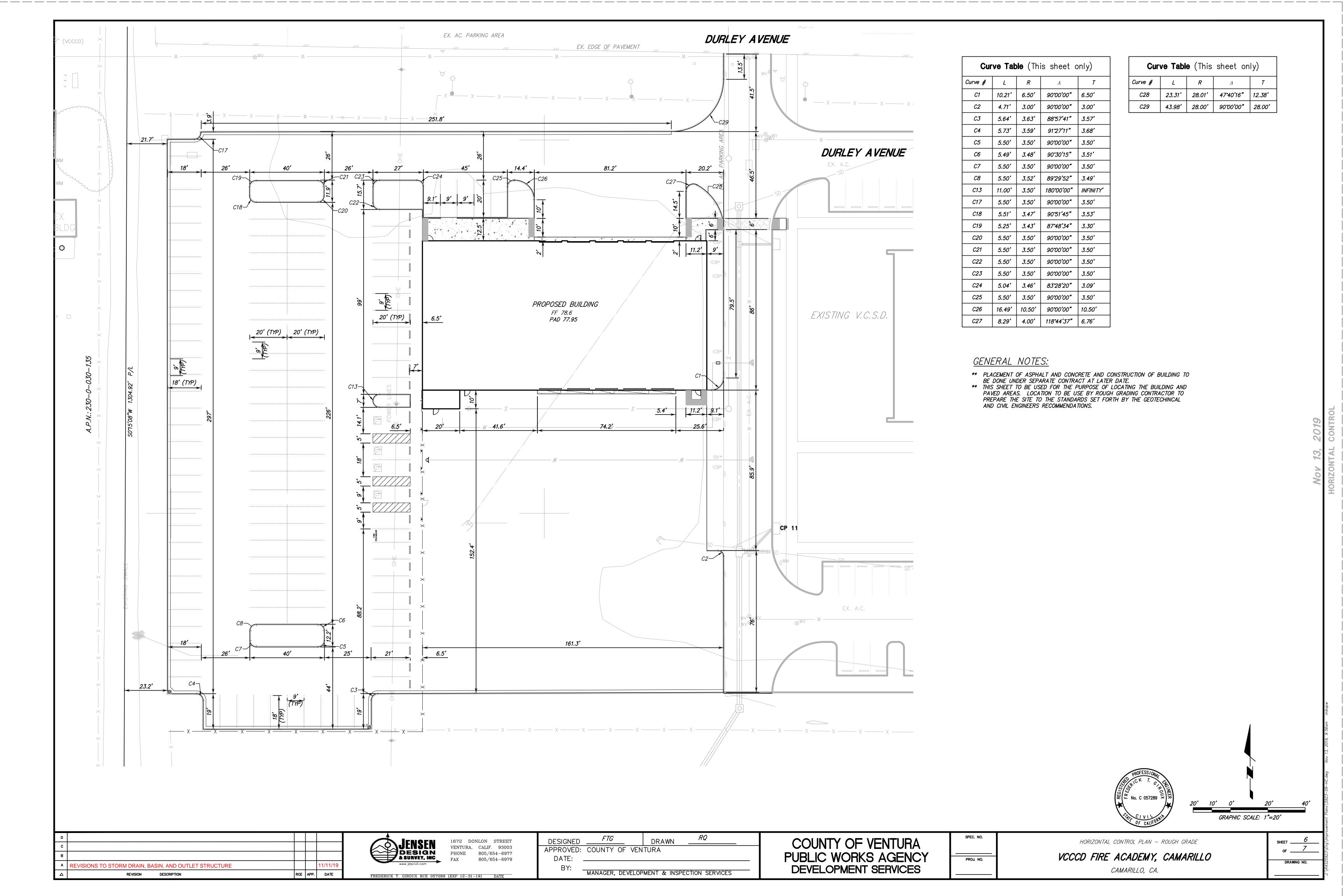
DRAWING NO.

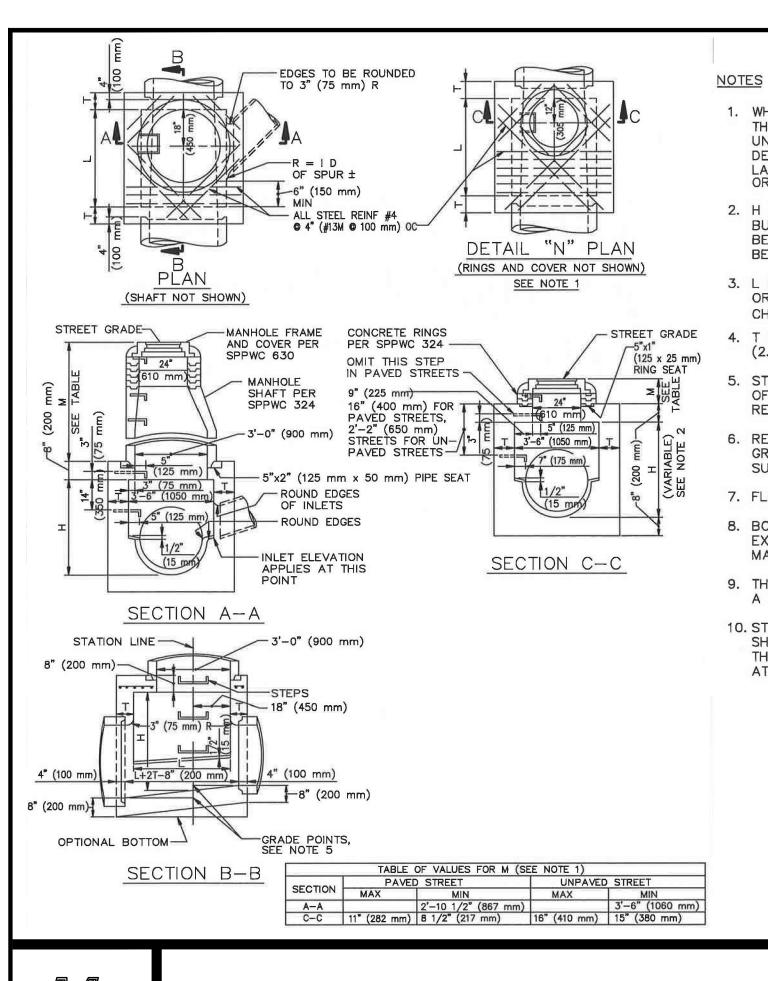
REVISIONS TO STORM DRAIN, BASIN, AND OUTLET STRUCTURE 11/11/	_
C	١.

VCCCD FIRE ACADEMY, CAMARILLO CAMARILLO, CA



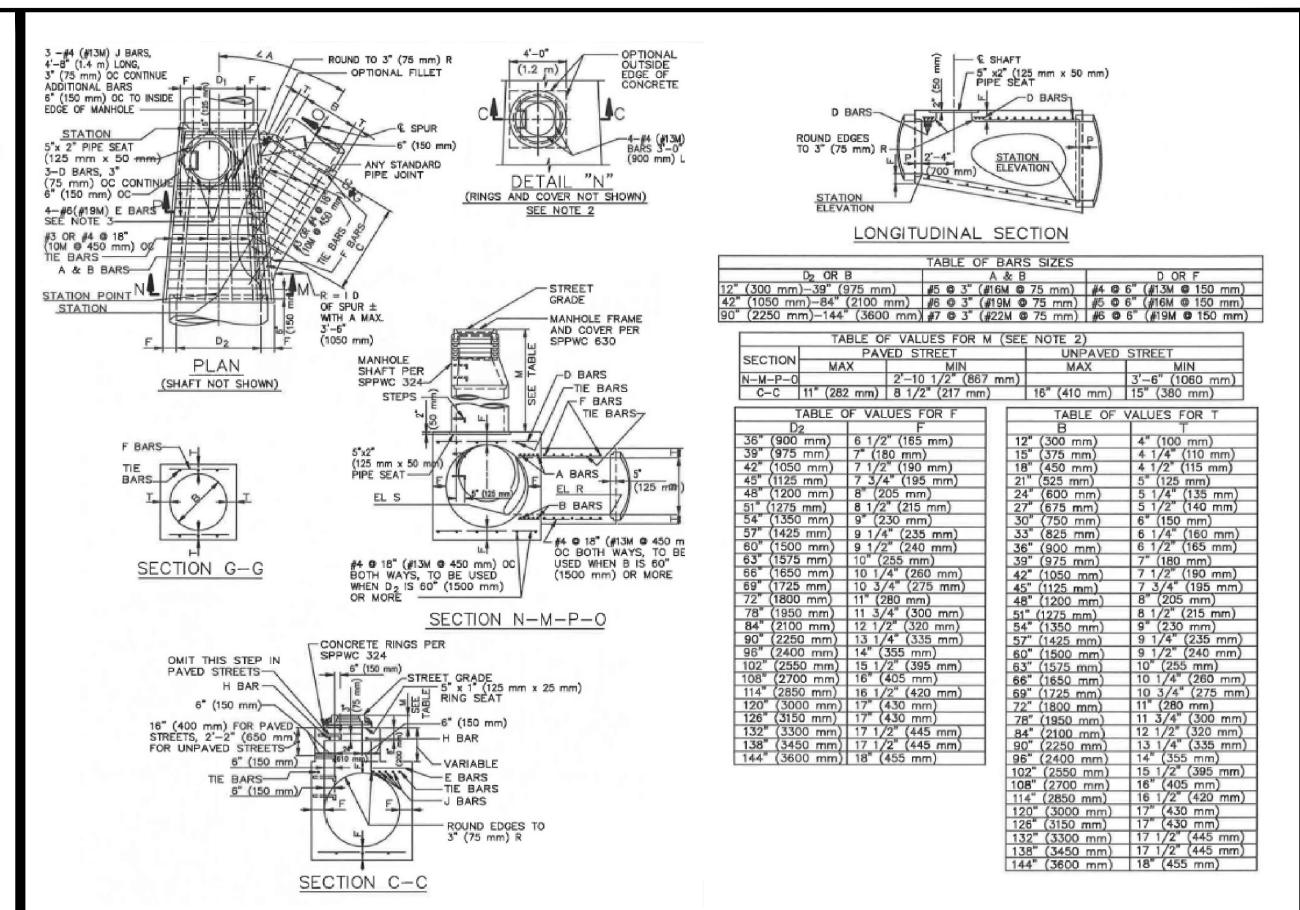






- 1. WHEN DEPTH M FROM STREET GRADE TO THE TOP OF THE BOX IS LESS THAN 2'-10 1/2" (867 mm) FOR PAVED STREETS OR 3'-6" (1060 mm) FOR UNPAVED STREETS, CONSTRUCT SHAFT PER SECTION C-C AND DETAIL "N". DEPTH M MAY BE REDUCED TO AN ABSOLUTE LIMIT OF 6" (150 mm) WHEN LARGER VALUES OF M WOULD REDUCE H IN SECTION C-C TO 3'-6" (1060 mm)
- 2. H (IN SECTION A-A AND B-B) SHALL NOT BE LESS THAN 4'-0" (1.2 m), BUT MAY BE INCREASED PROVIDED THAT THE VALUE OF M SHALL NOT BE LESS THAN THE MINIMUM SPECIFIED AND THAT THE REDUCER SHALL BE USED. FOR H (IN SECTION C-C) SEE NOTE 1.
- 3. L SHALL BE 4'-0" (1.2 m) UNLESS OTHERWISE SHOWN. L MAY BE INCREASED OR LOCATION OF MANHOLE SHIFTED TO MEET PIPE ENDS, BUT ANY CHANGE IN LOCATION OF THE SPUR MUST BE APPROVED BY THE ENGINEER
- 4. T SHALL BE 8" (200 mm) FOR VALUES OF H UP TO AND INCLUDING 8'-0" (2.4 m) AND 10" (250 mm) FOR VALUES OF H OVER 8'-0" (2.4 m).
- 5. STATIONS OF MANHOLES SHOWN ON PLANS APPLY AT CENTERLINE OF SHAFT, ELEVATIONS ARE SHOWN AT CENTERLINE OF SHAFT AND REFER TO THE PROLONGED INVERT GRADE LINES. SEE NOTE 3.
- REINFORCEMENT SHALL CONFORM TO ASTM A 615, GRADE 40 (ASTM A 615M, GRADE 300), AND SHALL TERMINATE 1 1/2" (40 mm) CLEAR OF CONCRETE SURFACES UNLESS OTHERWISE SHOWN.
- 7. FLOOR OF MANHOLE SHALL BE STEEL TROWELED TO SPRING LINE.
- 8. BODY OF MANHOLE SHALL BE POURED IN ONE CONTINUOUS OPERATION EXCEPT THAT A CONSTRUCTION JOINT WITH A LONGITUDINAL KEYWAY MAY BE PLACED AT SPRING LINE.
- 9. THICKNESS OF THE DECK SHALL VARY WHEN NECESSARY TO PROVIDE A LEVEL SEAT BUT SHALL NOT BE LESS THAN 8" (200 mm).
- 10. STEPS SHALL CONFORM TO SPPWC 635 OR 636. UNLESS OTHERWISE SHOWN, STEPS SHALL BE UNIFORMLY SPACED 14" (350 mm) TO 15" (375 mm) OC. THE LOWEST STEP SHALL NOT BE MORE THAN 24" (600 mm) ABOVE THE LEDGE AT THE SIDE OF THE MANHOLE.

- 11. THE FOLLOWING CRITERIA SHALL BE USED FOR THIS MANHOLE:
- A. MAIN LINE = 33" (825 mm) INSIDE DIAMETER OR LESS. (EXCEPTION -IF THE MAIN LINE RCP DOWNSTREAM OF THE MANHOLE IS 36" (900 mm) TO 42" (1050 mm) INSIDE DIAMETER AND THE MAIN LINE RCP UPSTREAM 33" (825 mm) OR LESS.) SPPWC 320 OR 322 IS NOT APPLICABLE WHERE THE MAIN LINE CONDUIT IS LESS THAN 36" (900 mm) IN DIAMETER.
- B. SEE SECTION A A. THE MAXIMUM SIZE LATERAL THAT MAY BE CONNECTED TO THIS MANHOLE IS SUCH THAT THE DISTANCE FROM THE OUTSIDE (TOP) OF THE LATERAL TO THE BOTTOM OF THE 8" (200 mm) THICK TOP OF THE MANHOLE CHAMBER, MEASURED VERTICALLY FROM THE END OF THE RCP, SHALL BE A MINIMUM OF 6" (150 mm).
- C. IF THE SIZE OF THE LATERAL IS SUCH THAT THE ABOVE-SPECIFIED MINIMUM DISTANCES CANNOT BE MAINTAINED, THEN ONE OF THE FOLLOWING ALTERNATE SOLUTIONS MUST BE USED.
- 1. PROVIDE A SPECIAL STRUCTURE.
- 2. PROVIDE TWO STANDARD STRUCTURES, CONSISTING OF THIS MANHOLE PLACED UPSTREAM OR DOWNSTREAM FROM THE APPLICABLE JUNCTION STRUCTURE OR TRANSITION STRUCTURE.
- 12. MANHOLE FRAME AND COVER SHALL CONFORM TO SPPWC 630 UNLESS OTHERWISE SHOWN.
- 13. MANHOLE SHAFT SHALL CONFORM TO SPPWC 324 UNLESS OTHERWISE SHOWN.
- 14. WHERE A MANHOLE SHAFT 36" (900 mm) WITHOUT REDUCER IS SPECIFIED REFER TO SPPWC 336.
- 15. WHERE A PRESSURE MANHOLE SHAFT WITH ECCENTRIC REDUCER IS
- SPECIFIED REFER TO SPPWC 328.
- 16. WHERE A PRESSURE MANHOLE SHAFT 36" (900 mm) WITHOUT REDUCER IS SPECIFIED REFER TO SPPWC 329.
- 17. THE FOLLOWING SPPWC ARE INCORPORATED HEREIN: 324 MANHOLE SHAFT - WITH ECCENTRIC REDUCER
- 326 MANHOLE SHAFT 36" (900 mm) WITHOUT REDUCER 328 PRESSURE MANHOLE SHAFT - WITH ECCENTRIC
- 329 PRESSURE MANHOLE SHAFT 36" (900 mm) WITHOUT REDUCER 630 24" (610 mm) MANHOLE FRAME AND COVER
- 633 36" (900 mm) MANHOLE FRAME AND COVER 635 STEEL STEP
- 636 POLYPROPYLENE PLASTIC STEP
- CONCRETE USED FOR UTILITY CONNECTIONS BE SPEC MIX 2000 OR APPROVED EQUAL. SEE SOILS REPORT FOR RECOMMENDATIONS.



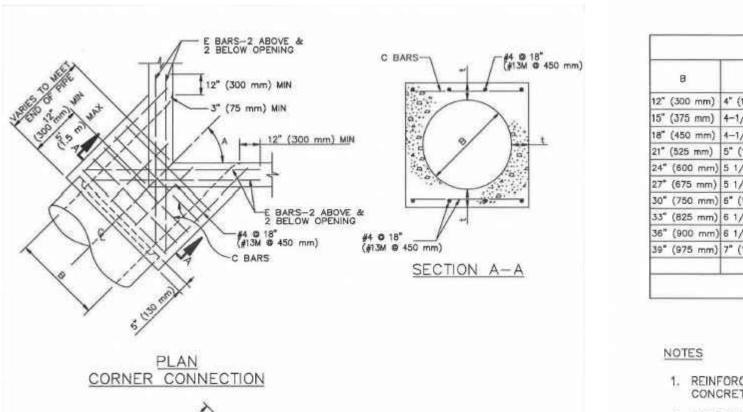
STORM DRAIN MANHOLE

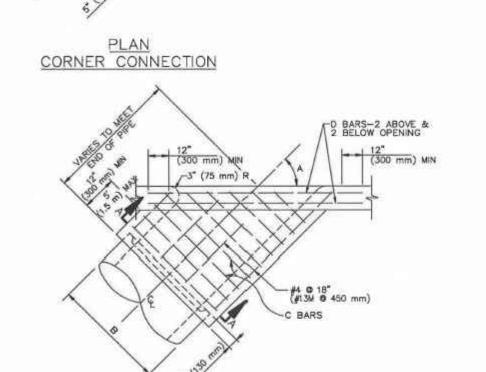
NOT TO SCALE

- VALUES FOR A, B, C, D₁, D₂, ELEVATION R AND ELEVATION S ARE SHOWN ON THE PLANS. ELEVATION S APPLIES AT INSIDE WALL OF STRUCTURE.
- 2. WHEN DEPTH M FROM STREET GRADE TO THE TOP OF THE BOX IS LESS THAN 2'-10 1/2" (867 mm) FOR PAVED STREETS OR 3'-6" (1060 mm) FOR UNPAVED STREETS, CONSTRUCT MONOLITHIC SHAFT PER SECTION C-C AND DETAIL "N". SHAFT FOR ANY DEPTH OF MANHOLE MAY BE CONSTRUCTED PER SECTION C-C. WHEN DIAMETER DI IS 48" (1200 mm) OR LESS, CENTER OF SHAFT MAY BE LOCATED PER NOTE 3.
- 3. CENTER OF MANHOLE SHAFT SHALL BE LOCATED OVER CENTERLINE OF STORM DRAIN WHEN DIAMETER D1 IS 48" (1200 mm) OR LESS, IN WHICH CASE PLACE E BARS SYMMETRICALLY AROUND SHAFT AT 45' WITH
- 4. LENGTH OF MANHOLE MAY BE INCREASED AT OPTION TO MEET PIPE ENDS, BUT ANY CHANGE IN LOCATION OF SPUR MUST BE APPROVED BY THE
- P SHALL BE 5" (125 mm) FOR D₂=96" (2400 mm) OR LESS AND 8" (200 mm) FOR D2 OVER 96" (2400 mm).
- 6. REINFORCEMENT SHALL CONFORM TO ASTM A 615, GRADE 40 (ASTM A 615M, GRADE 300), AND SHALL TERMINATE 1 1/2" (40 mm) CLEAR OF CONCRETE SURFACES UNLESS OTHERWISE SHOWN.
- 7. FLOOR OF MANHOLE SHALL BE STEEL TROWELED TO SPRING LINE.
- 8. BODY OF MANHOLE SHALL BE POURED IN ONE CONTINUOUS OPERATION EXCEPT THAT A CONSTRUCTION JOINT WITH A LONGITUDINAL KEYWAY MAY BE PLACED AT SPRING LINE.
- 9. THICKNESS OF THE DECK SHALL VARY WHEN NECESSARY TO PROVIDE A LEVEL SEAT BUT SHALL NOT BE LESS THAN THE TABULAR VALUES OF F SHOWN ON TABLE, SHEET 1.
- 10. IF LATERALS ENTER ON BOTH SIDES OF MANHOLE, SHAFT SHALL BE LOCATED ON SIDE RECEIVING THE SMALLER LATERAL.
- 11. STEPS SHALL CONFORM TO SPPWC 635 OR 636. UNLESS OTHERWISE SHOWN, STEPS SHALL BE UNIFORMLY SPACED 14" (350 mm) TO 15" (375 mm) OC. THE LOWEST STEP SHALL NOT BE MORE THAN 24" (600 mm) ABOVE THE INVERT.
- 12. THE FOLLOWING CRITERIA SHALL BE USED FOR THIS MANHOLE:
- A. THIS STANDARD PLAN IS USED WHEN SPPWC 320 IS INADEQUATE. MAIN LINE = 36" (900 mm) INSIDE DIAMETER OR LARGER.
- B. LATERAL = 12" (300 mm) TO 144" (3600 mm) INSIDE DIAMETER; HOWEVER, THE INSIDE DIAMETER SHALL NOT EXCEED THE INSIDE DIAMETER OF THE MAIN LINE.

- 13. MANHOLE FRAME AND COVER SHALL CONFORM TO SPPWC 630 UNLESS OTHERWISE SHOWN.
- 14. MANHOLE SHAFT SHALL CONFORM TO SPPWC 324 UNLESS OTHERWISE SHOWN.
- 15. WHERE A MANHOLE SHAFT 36" (900 mm) WITHOUT REDUCER IS SPECIFIED REFER TO SPPWC 326.
- 16. WHERE A PRESSURE MANHOLE SHAFT WITH ECCENTRIC REDUCER IS SPECIFIED REFER TO SPPWC 328.
- 17. WHERE A PRESSURE MANHOLE SHAFT 36" (914 mm) WITHOUT REDUCER IS SPECIFIED REFER TO SPPWC 329.
- 18. THE FOLLOWING SPPWC ARE INCORPORATED HEREIN:
- 324 MANHOLE SHAFT WITH ECCENTRIC REDUCER 326 MANHOLE SHAFT - 36" (900 mm) WITHOUT REDUCER
- 328 PRESSURE MANHOLE SHAFT WITH ECCENTRIC 329 PRESSURE MANHOLE SHAFT - 36" (914 mm) WITHOUT
- REDUCER
- 630 24" (610 mm) MANHOLE FRAME AND COVER
- 633 36" (914 mm) MANHOLE FRAME AND COVER 635 STEEL STEP
- 636 POLYPROPYLENE PLASTIC STEP

STORM DRAIN JUNCTION WITH MANHOLE COVER NOT TO SCALE





PLAN SIDE CONNECTION

В	t	C BARS	D&E BARS	8	t	C BARS	D&E BARS
12" (300 mm)	4" (115 mm)			42" (1050 mm)	7 1/2" (190 mm)		
15" (375 mm)	4-1/4" (115 mm)	8		45" (1125 mm)	7 3/4" (190 mm)	2	(M61#) 9#
18" (450 mm)	4-1/2" (115 mm)	#4 @ 6" (#13M @ 150 mm)		48" (1200 mm)	8" (215 mm)	(шш)	
21" (525 mm)	5" (140 mm)	55	8	51° (1275 mm)	8 1/2" (215 mm)	(#16M to 150	
24" (600 mm)	5 1/4" (140 mm)	0	9116	54" (1350 mm)	9" (240 mm)		
27* (675 mm)	5 1/2" (140 mm)	E I	#5 (#16M)	57" (1425 mm)	9 1/4" (240 mm)		
30" (750 mm)	6" (165 mm)	*6		60" (1500 mm)	9 1/2" (240 mm)	*9	
33" (825 mm)	6 1/4" (165 mm)	0		63" (1575 mm)	10" (260 mm)	9	
36" (900 mm)	6 1/2" (165 mm)	*		66" (1650 mm)	10 1/4" (260 mm)		
39" (975 mm)	7" (190 mm)			69" (1725 mm)	10 3/4" (280 mm)		
				72" (1800 mm)	11" (280 mm)		

- 1. REINFORCING STEEL SHALL BE 1-1/2" (40 mm) CLEAR FROM FACE OF CONCRETE UNLESS OTHERWISE SHOWN.
- 2. REINFORCING STEEL FOR INSIDE FACE OF CATCH BASIN SHALL BE CUT AT CENTER OF OPENING AND BENT INTO WALLS OF MONOLITHIC CATCH BASIN CONNECTION. REINFORCING STEEL FOR OUTSIDE FACE OF CATCH BASIN SHALL BE CUT 2" (50 mm) CLEAR OF OPENING.
- CONNECTION SHALL BE PLACED MONOLITHIC WITH CATCH BASIN. THE ROUNDED EDGE OF OUTLET SHALL BE CONSTRUCTED BY PLACING CONCRETE WITH THE SAME CLASS OF CONCRETE AS THE CATCH BASIN AGAINST A CURVED FORM WITH A RADIUS OF 3" (75 mm).
- 4. CONNECTIONS SHALL BE CONSTRUCTED WHEN:
- (A) PIPES INLET OR OUTLET THROUGH CORNER OF CATCH BASIN (B) ANGLE A FOR PIPES THROUGH 30" (750 mm) IN DIAMETER
- IS LESS THAN 70' OR GREATER THAN 110'.

 CONCRETE USED FOR UTILITY CONNECTION TO BE SPEC MIX 2000 OR APPROVED EQUAL. SEE SOILS REPORT FOR RECOMMENDATIONS.

STORM DRAIN JUNCTION WITH MANHOLE COVER

1672 DONLON STREET PHONE FAX

VENTURA, CALIF. 93003 805/654-6977 805/654-6979

DRAWN DESIGNED APPROVED: COUNTY OF VENTURA DATE: MANAGER, DEVELOPMENT & INSPECTION SERVICES

COUNTY OF VENTURA PUBLIC WORKS AGENCY SPEC. NO. PROJ. NO.

IMPROVEMENT PLAN DETAILS - ROUGH GRADE

DRAWING NO.

REVISIONS TO STORM DRAIN, BASIN, AND OUTLET STRUCTURE RCE APP. DATE

™DESIGN & SURVEY. INC

FREDERICK T. GIROUX RCE 057289 (EXP 12-31-19) DATE

DEVELOPMENT SERVICES

MONOLITHIC CATCH BASIN CONNECTION

VCCCD FIRE ACADEMY, CAMARILLO CAMARILLO, CA.