CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

April 24, 2017

Amy L. D. Niese, P.E.
Souder, Miller & Associates
3451 Candelaria Road NE
Albuquerque, NM, 87106

RE: CNM Main Campus, Improvements Near Coal
Drainage Plan
Stamp Date: 4/17/17
Hydrology File: K15D076A

Dear Ms. Niese:

Based upon the information provided in your submittal received 4/19/2017, the Drainage Plan is approved for Paving Permit.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renee C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

Orig: Drainage File

Albuquerque - Making History 1706-2006

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: CNM Main Campus, Improvements Near Coal Building Permit #: _____ City Drainage #: K-15

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Parcel A, Technical Vocational Institute

City Address: 525 Buena Vista Dr SE, Alb, NM 87106

Engineering Firm: Souder, Miller & Associates Contact: Amy L. D. Niese, P.E.

Address: 3451 Candelaria Road NE, Alb, NM 87107

Phone#: 299-0942 Fax#: _____ E-mail: amy.niese@soudermiller.co

Owner: CNM Contact: Mark Russell

Address: 625 Buena Vista Dr SE, Alb, NM 87106

Phone#: 224-4000 ext 53433 Fax#: _____ E-mail: mrussell3@cnm.edu

Architect: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- X DRAINAGE PLAN 1st SUBMITTAL
- ____ DRAINAGE PLAN RESUBMITTAL
- ____ CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ____ ENGINEER'S CERT (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERT (TCL)
- ____ ENGINEER'S CERT (DRB SITE PLAN)
- ____ ENGINEER'S CERT (ESC)
- ____ SO-19
- ____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- ____ S. DEV. FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____ GRADING PERMIT APPROVAL
- X PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION
- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

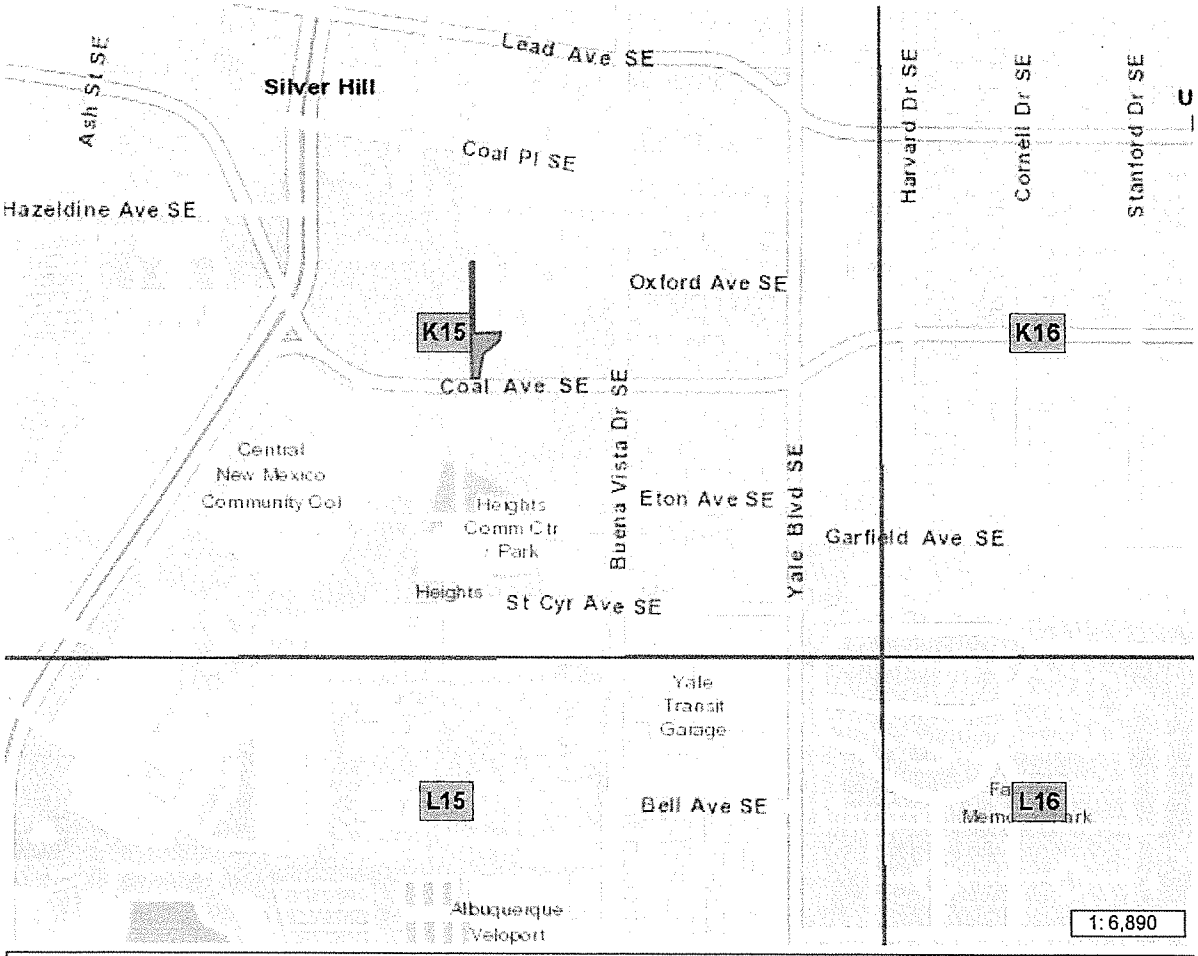
WAS A PRE-DESIGN CONFERENCE ATTENDED: X Yes ____ No ____ Copy Provided

DATE SUBMITTED: 4/19/17 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

CNM Coal Project



Legend

- Zone Grid
- Municipal Limits
  - Corrales
  - Edgewood
  - Los Ranchos
  - Rio Rancho
  - Tijeras
  - UNINCORPORATED
- World Street Map

Notes

0.2 0 0.08 0.2 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

4/19/2017

© City of Albuquerque

This map is a user generated static output from www.cabq.gov/gis and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR LEGAL PURPOSES

Souder, Miller & Associates • 3451 Candelaria Road NE, Suite D
Albuquerque, NM 87107-1948 • (505) 299-0942 • (877) 299-0942 • fax (505) 293-3430

April 19, 2017

City of Albuquerque

Albuquerque, NM 87109

SMA P# 9424584

Attn: Mr. Doug Hughes, P.E., Hydrology

RE: **CNM– Coal Avenue Site**

Dear Mr. Hughes:

The following is Souder, Miller & Associates (SMAs) analysis of the existing and proposed drainage conditions for the development of the CNM Site at Coal Avenue west of Buena Vista Drive. The purpose of the project is to repave the parking lot and to replace a wall between the CNM property and St. Charles Elementary School property. SMA is requesting a Grading Plan approval and ESC approval from the City of Albuquerque.

Existing Drainage Patterns
Please see the attached Sheet C007 for the basin delineations and flow patterns for the existing conditions. SMA determined the existing drainage basins and flow patterns from the topographic survey that was performed by SMA.

The drainage in the parking lot (Basin A) generally flows east to west between the buildings and then north to south. Then 2.50 cfs discharges through the driveway onto Coal Avenue.

Basin B is to the north and west of the parking lot. Runoff drains from the building roof and asphalt parking lot to an overgrown slope. This basin discharges 3.50 cfs onto the St. Charles Elementary School property.

Basin D drains west then south to an existing inlet. The area is roof surface and asphalt parking lot. All 3.40 cfs is taken in by the inlet.

Basin C is an asphalt parking lot south of Basin D. This drains 0.97 cfs down a concrete rundown on the slope and discharges to the St. Charles Elementary School Property.

Proposed Drainage Patterns
Please see Sheet C007 for the basin delineations and flow patterns for the proposed conditions. The project will not change the drainage patterns or flow amounts to be discharged.

Rainfall
Rainfall data was obtained from the NOAA Precipitation Frequency Data Server for both Point Precipitation Frequency (PPFE) and Intensity (PPIE) Estimates. PPFE and PPIE data was used for the hydrologic analysis.

The following tables summarize the rainfall data used for the hydrologic analysis.

CNM Site at Coal Avenue Point Precipitation Frequency Summary						
Duration	(inches)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
6-hr	0.990	1.28	1.50	1.81	2.05	2.30
24-hr	1.24	1.55	1.80	2.13	2.39	2.65

CNM Site at Coal Avenue Point Precipitation Frequency Summary						
Duration	(inches/hour)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
10-min	2.08	2.78	3.33	4.08	4.66	5.27
15-min	1.72	2.30	2.75	3.37	3.85	4.36

FEMA Floodplains

The area of the property is shown in FEMA map panel 35001C0334G, dated September 26, 2008. This map shows that the property lies within a FEMA designated Zone X. Zone X indicates that it is a minimal flood hazard area, which is outside the 0.2 percent-annual-chance flood.

Loss Calculations

Soils in the project area were determined by the Geotechnical Report provided by Geo-Test August 5, 2016. Runoff coefficients were determined from soil types and land use/impervious area. Time of concentration was determined using the TR-55 method, which is based on the length of the drainage reach.

The soils are "predominately silty sands and with relatively clean sands with various amounts of gravel interbedded with lesser amounts of sandy silts. The coarse grain soils ranged from medium dense to dense while the fine grained soils ranged from soft to moderately firm. All soils were non-plastic. No free groundwater was encountered in the borings and soil moisture contents were relatively low throughout the extent of the borings."

The Loss Calculation results are summarized below.

CNM Site at Coal Avenue Loss Calculations		
Basin	**Runoff Coefficient**	**Time of Concentration (min)**
A	0.90	6
B	0.77	6
C	0.84	2
D	0.74	53

Hydrology

SMA analyzed the existing and proposed runoff conditions for the 2-year, 10-year and 100-year storm events. Hydrographs for AutoCAD Civil 3D 2015 was used to perform the Rational Method calculations. SMA modeled each basin separately and added them based on the runoff characteristics of the site described above.

The first table summarizes the results for each basin and the second table provides the relevant totals for the 100-year storm event.

CNM Site at Coal Avenue
Existing and Proposed Hydrology Summary

	2-year		10-year		100-year		Description
Basin	Peak Flow Rate (cfs)	Runoff Volume (cu-ft)	Peak Flow Rate (cfs)	Runoff Volume (cu-ft)	Peak Flow Rate (cfs)	Runoff Volume (cu-ft)	
A	0.62	223	1.25	448	2.05	737	Main Parking Lot at Coal
B	1.06	380	2.13	766	3.50	1,259	Main Bldg and West Slope
C	0.29	35	0.59	71	0.97	116	Parking Lot North of Main Bldg
D	1.03	3,263	2.07	6,572	3.40	10,803	Northernmost Parking Lot off Coal Place

CNM Site at Coal Avenue
Existing and Proposed
Runoff Totals for the 100-yr Storm Event

Description	Peak Flow Rate (cfs)	Runoff Volume (cu-ft)
Total Discharge to Coal (Basin A)	2.05	737
Total Discharge to St. Charles Elementary School (Basins B and C)	4.47	1,375

Please see the enclosed preliminary grading plan. SMA met with Abiel Carrillo on September 22, 2016 regarding this project. Currently, the parking lot drains through the driveway. He agreed

that is was not necessary to drain the parking lot through a sidewalk culvert because it is expected that drainage will come from a parking lot through a driveway.

SMA emailed Curtis Cherne March 17, 2017. He did not believe an Erosion and Sediment Control Plan was required because this CNM work is on-site and permitted through CID.

Please do not hesitate to call me if you have any questions regarding this analysis or recommendations.

Sincerely,
MILLER ENGINEERING CONSULTANTS, INC.
d/b/a Souder, Miller & Associates

Amy L. D. Niese, P.E.
Project Engineer

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	2.046	1	6	737	------	------	------	Basin A - main parking lot at Coal
2	Rational	3.498	1	6	1,259	------	------	------	Basin B - main bldg
3	Rational	0.970	1	2	116	------	------	------	Basin C - Parking lot north of site
4	Rational	3.397	1	53	10,803	------	------	------	Basin D - Parkin Lot off Coal Place

Hydrograph Report

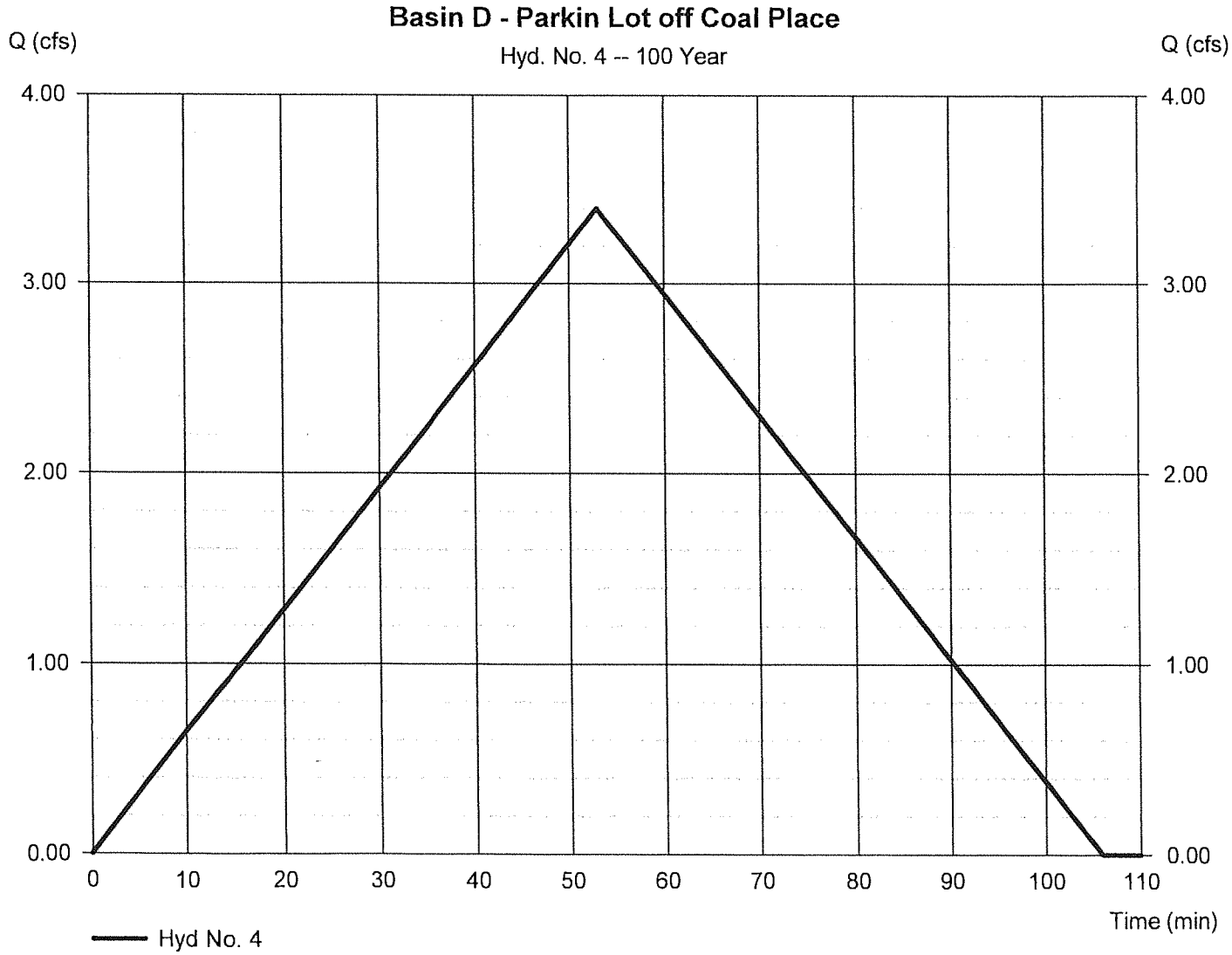
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4 — Wednesday, 10 / 12 / 2016

Hyd. No. 4

Basin D - Parkin Lot off Coal Place

Hydrograph type	= Rational	Peak discharge	= 3.397 cfs
Storm frequency	= 100 yrs	Time to peak	= 53 min
Time interval	= 1 min	Hyd. volume	= 10,803 cuft
Drainage area	= 2.420 ac	Runoff coeff.	= 0.74*
Intensity	= 1.897 in/hr	Tc by TR55	= 53.00 min
IDF Curve	= AlbPF.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.810 x 0.90) + (0.610 x 0.25)] / 2.420



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	--------
2	17.8914	10.7000	0.8283	--------
3	0.0000	0.0000	0.0000	--------
5	28.1828	10.7000	0.8283	--------
10	36.0279	10.7000	0.8283	--------
25	44.8853	10.7000	0.8283	--------
50	52.4773	10.7000	0.8283	--------
100	59.2257	10.7000	0.8283	--------

File name: AlbPF.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1.83	1.45	1.22	1.05	0.93	0.83	0.75	0.69	0.64	0.60	0.56	0.53
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2.88	2.29	1.91	1.65	1.46	1.31	1.19	1.09	1.01	0.94	0.88	0.83
10	3.68	2.93	2.45	2.11	1.86	1.67	1.52	1.39	1.29	1.20	1.12	1.06
25	4.59	3.65	3.05	2.63	2.32	2.08	1.89	1.74	1.61	1.50	1.40	1.32
50	5.36	4.26	3.57	3.08	2.72	2.44	2.21	2.03	1.88	1.75	1.64	1.54
100	6.05	4.81	4.02	3.47	3.06	2.75	2.50	2.29	2.12	1.97	1.85	1.74

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	2.20	0.00	3.30	4.25	5.77	6.80	7.95
SCS 6-Hr	0.00	1.80	0.00	0.00	2.60	0.00	0.00	4.00
Huff-1st	0.00	1.55	0.00	2.75	4.00	5.38	6.50	8.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	1.75	0.00	2.80	3.90	5.25	6.00	7.10

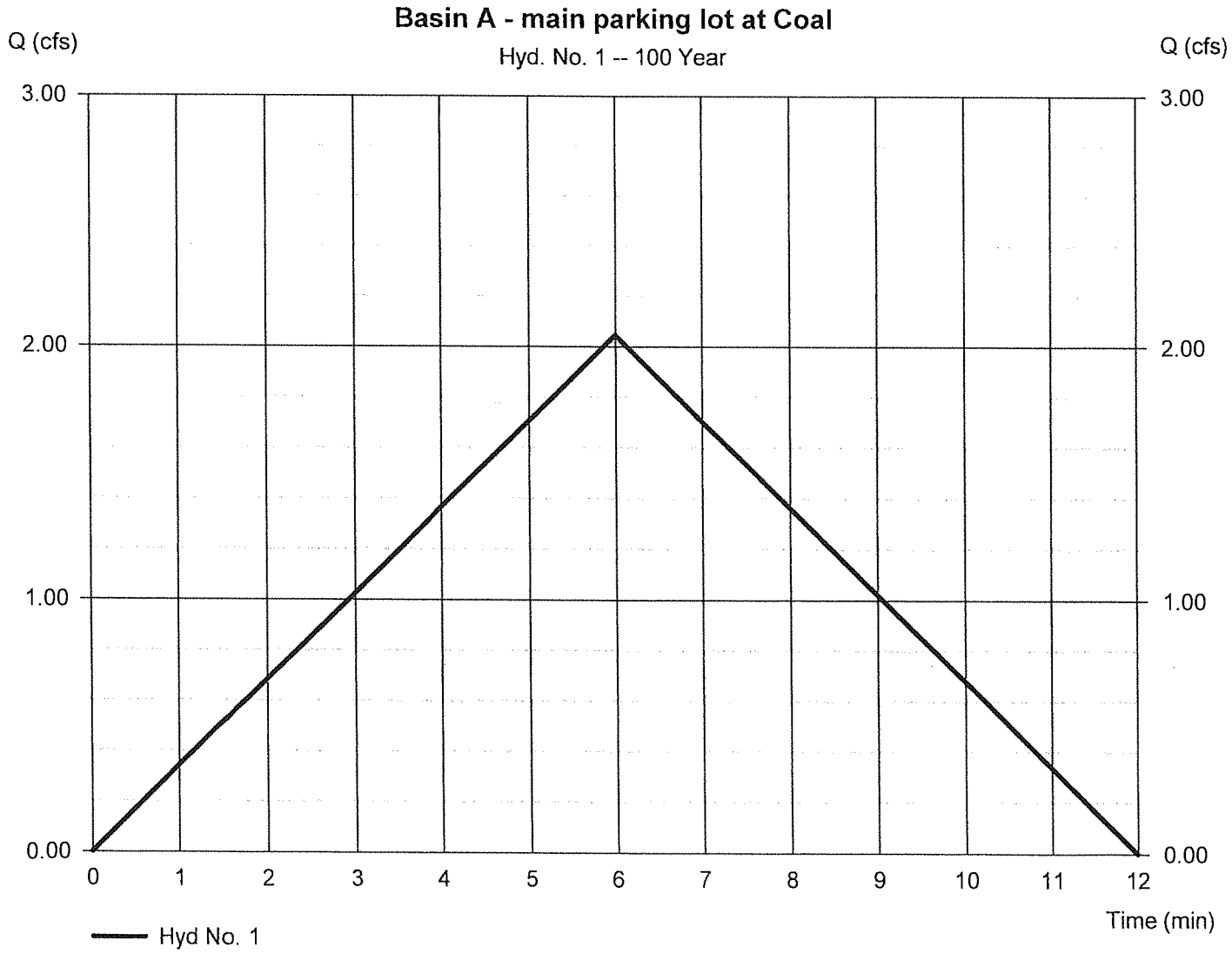
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4 Thursday, 10 / 6 / 2016

Hyd. No. 1

Basin A - main parking lot at Coal

Hydrograph type	= Rational	Peak discharge	= 2.046 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 737 cuft
Drainage area	= 0.395 ac	Runoff coeff.	= 0.9
Intensity	= 5.750 in/hr	Tc by TR55	= 6.00 min
IDF Curve	= AlbPF.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

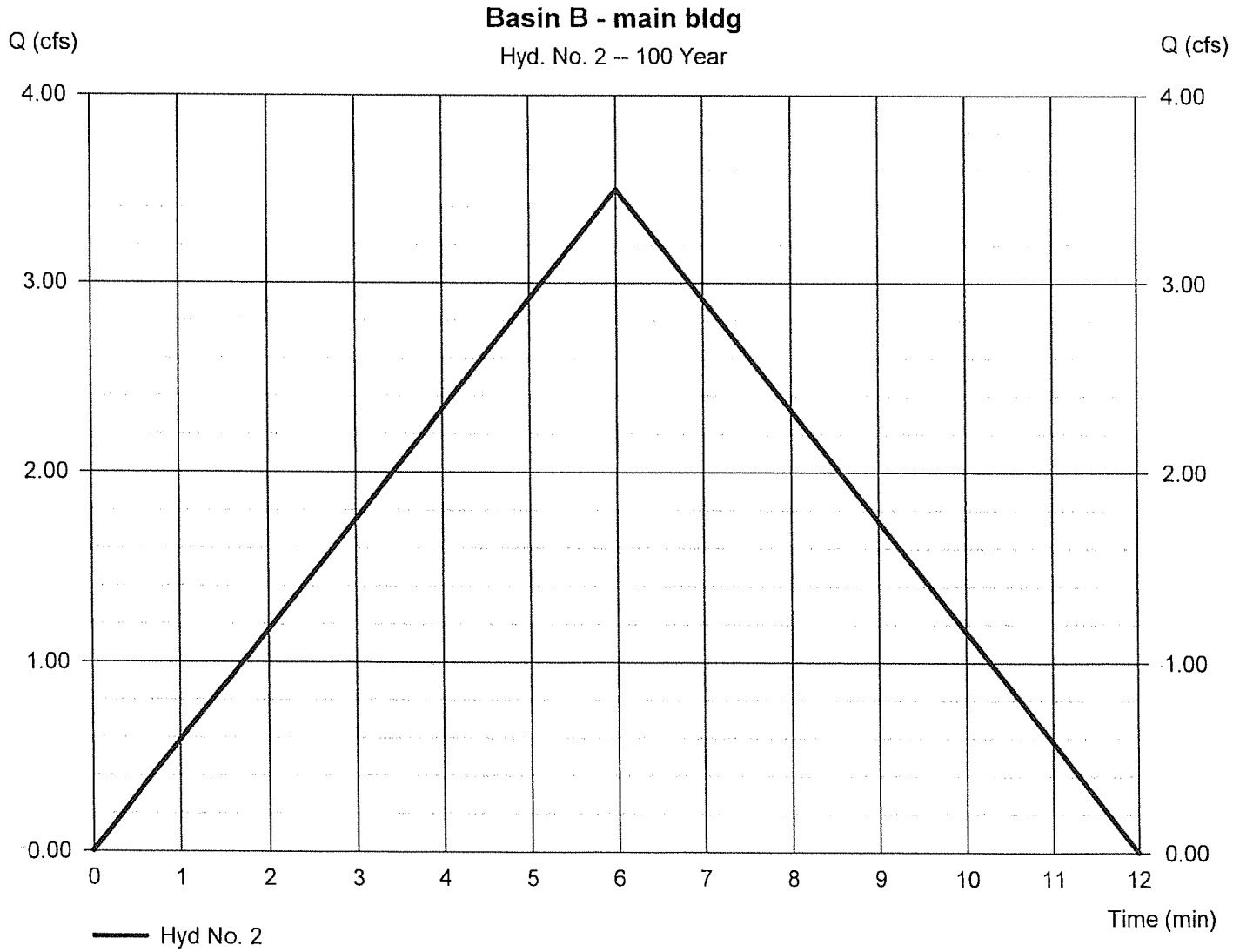
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4 — Thursday, 10 / 6 / 2016

Hyd. No. 2

Basin B - main bldg

Hydrograph type	= Rational	Peak discharge	= 3.498 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 1,259 cuft
Drainage area	= 0.790 ac	Runoff coeff.	= 0.77*
Intensity	= 5.750 in/hr	Tc by TR55	= 6.00 min
IDF Curve	= AlbPF.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.170 x 0.30) + (0.620 x 0.90)] / 0.790



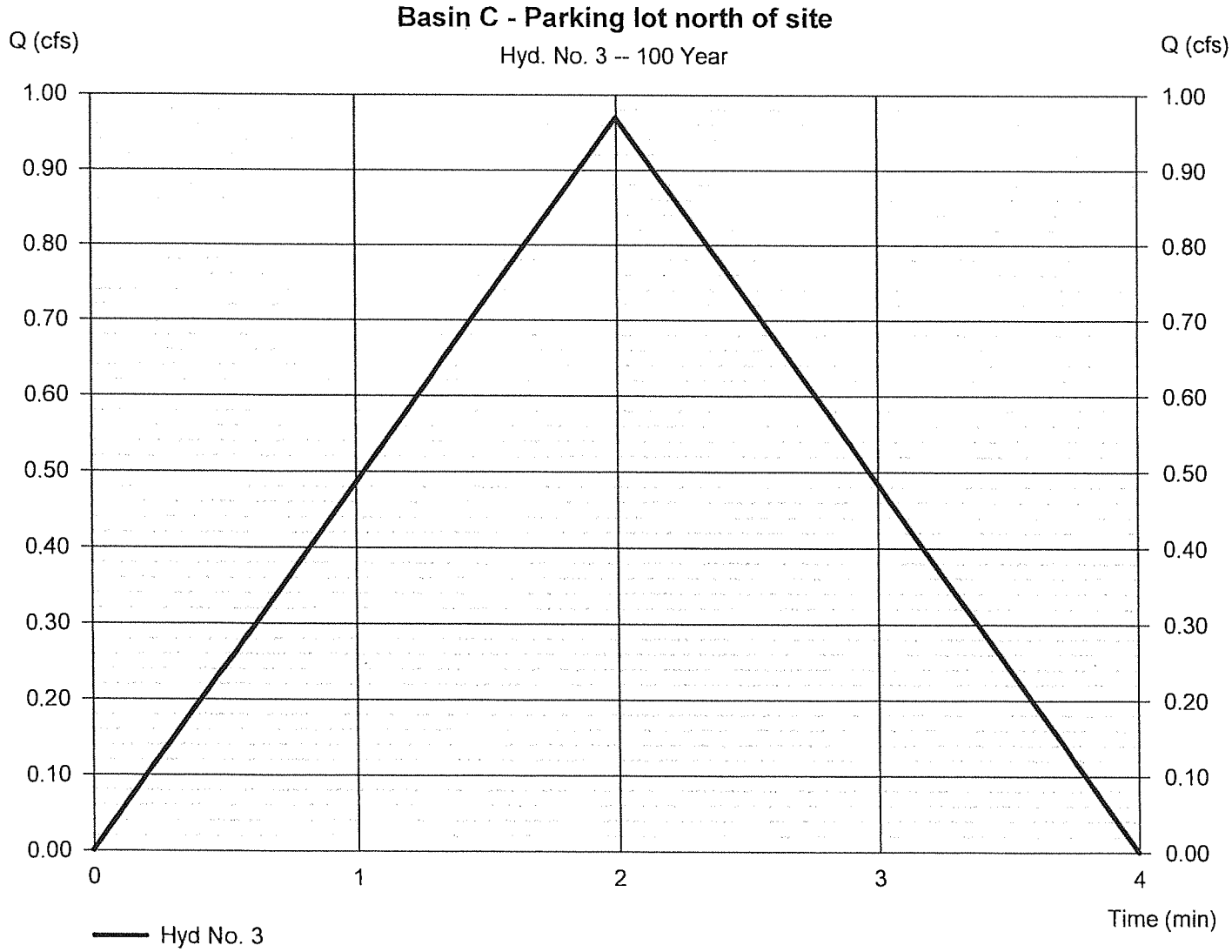
Hydrograph Report

Hyd. No. 3

Basin C - Parking lot north of site

Hydrograph type	= Rational	Peak discharge	= 0.970 cfs
Storm frequency	= 100 yrs	Time to peak	= 2 min
Time interval	= 1 min	Hyd. volume	= 116 cuft
Drainage area	= 0.160 ac	Runoff coeff.	= 0.84*
Intensity	= 7.214 in/hr	Tc by TR55	= 2.00 min
IDF Curve	= AlbPF.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.150 x 0.90) + (0.010 x 0.03)] / 0.160



TR55 Tc Worksheet

Hyd. No. 2

Basin B - main bldg

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.011		0.026		0.011		
Flow length (ft)	= 153.0		9.0		0.0		
Two-year 24-hr precip. (in)	= 1.24		1.24		0.00		
Land slope (%)	= 0.08		0.50		0.00		
Travel Time (min)	**= 9.77**	**+**	**0.98**	**+**	**0.00**	**=**	**10.75**
Shallow Concentrated Flow							
Flow length (ft)	= 0.00		0.00		0.00		
Watercourse slope (%)	= 0.00		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=0.00		0.00		0.00		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 6.00 min

TR55 Tc Worksheet

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Hyd. No. 3

Basin C - Parking lot north of site

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 129.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.24		0.00		0.00		
Land slope (%)	= 6.25		0.00		0.00		
Travel Time (min)	**= 1.51**	**+**	**0.00**	**+**	**0.00**	**=**	**1.51**
Shallow Concentrated Flow							
Flow length (ft)	= 0.00		0.00		0.00		
Watercourse slope (%)	= 0.00		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=0.00		0.00		0.00		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 2.00 min

GENERAL NOTES

1. THE CNM PROJECT MANGER, WILL BE THE CONTACT FOR QUESTIONS FROM THE CONTRACTOR. THE PRIMARY ENGINEER WILL BE CHAVEZ-GRIEVES. SOUDER, MILLER, & ASSOCIATES IS THE CIVIL ENGINEER.

2. THERE WILL BE A PERSON OR PERSONS (HEREINAFTER KNOWN AS THE OWNER'S REPRESENTATIVE) CHOSEN BY OWNER (HEREINAFTER KNOWN AS THE OWNER) TO ACT AS A CONTACT PERSON BETWEEN THE OWNER AND THE ENGINEER. THE OWNER'S REPRESENTATIVE WILL OBSERVE AND PROVIDE INFORMATION, AND PROVIDE CRITICAL LOCATIONS THROUGH THE ENGINEER TO THE CONTRACTOR IN THE FIELD.

3. THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND IS NOT LIABLE FOR PROBLEMS THAT MAY ARISE FROM THE CONTRACTOR'S FAILURE TO FOLLOW THESE DRAWINGS, SPECIFICATIONS, AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS ARISING FROM FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS.

4. CONTRACTOR SHALL CONFINE ALL CONSTRUCTION OPERATIONS TO THE LIMITS OF THE PROJECT EASEMENTS DEFINED IN THESE DRAWINGS, AND IN NO WAY ENCROACH ONTO ADJACENT PROPERTIES, UNLESS LEGAL EASEMENTS ARE PROVIDED. CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY AGREEMENTS NEEDED, OR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO PUBLIC OR PRIVATE PROPERTY, INCLUDING UTILITIES.

5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTING THE PROJECT ACCORDING TO CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, INCLUDING WHERE PARTICULAR WORK ITEMS ARE NOT SPECIFIED HEREIN.

6. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS SET FORTH IN THE TECHNICAL SPECIFICATIONS AND CONTRACT DOCUMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE PRIMARY ENGINEER REGARDING ANY QUESTION ARISING FROM ANY ASPECT OF THIS PROJECT NOT SPECIFICALLY COVERED IN THE PLANS AND TECHNICAL SPECIFICATIONS, OR ANY CHANGES OR CORRECTIONS TO THE PLANS AND SPECS.

7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL (OSHA), STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P - EXCAVATIONS.

8. CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING BUILDING PERMITS, ROAD CROSSING PERMITS AND ANY OTHER PERMITS, WHICH HAVE NOT ALREADY BEEN OBTAINED BY THE OWNER OR ENGINEER.

9. THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO ANY LOCAL BUSINESSES AND RESIDENTS AS REQUIRED FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE OF AND SCHEDULE ACCESS CLOSURES AT LEAST 24 HOURS IN ADVANCE WITH PROPERTY OWNERS AND THE ENGINEER.

10. CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH SPECIFICATIONS FOR ROAD AND ANY APPLICABLE SPECIAL PROVISION AND/OR SUPPLEMENTAL SPECIFICATION, AS WELL AS THE MOST CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, UNLESS OTHERWISE SPECIFIED HEREIN.

11. AS PART OF THE TRAFFIC CONTROL PLAN AND TRAFFIC CONTROL MANAGEMENT, THE CONTRACTOR SHALL HAVE PERSONNEL AVAILABLE 24 HOURS PER DAY, 7 DAYS PER WEEK, TO INSPECT AND MAINTAIN DETOURS AND TRAFFIC CONTROL DEVICES.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED BY THE PLANS WHETHER SPECIFICALLY LISTED OR NOT TO COMPLETE THE PROJECT. THIS WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND THE CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR UNLISTED REMOVALS.

13. OBSTRUCTIONS REMOVED FROM THE WORK AREAS SHALL BE DISPOSED OF BY THE CONTRACTOR. DISPOSAL OF USABLE MATERIALS (E.G., EXCESS DIRT, GRAVEL, ETC.) SHALL BE AT A SITE DESIGNATED BY THE OWNER DURING CONSTRUCTION. ALL OTHER WASTE SHALL BE DISPOSED OF AT AN APPROVED LANDFILL. ALL DISPOSAL SITES MUST BE APPROVED BY THE ENGINEER AND OWNER PRIOR TO DISPOSAL OF ANY WASTE.

14. THE CONTRACTOR SHALL SALVAGE ANY OBSTRUCTIONS NOTED ON THE CONTRACT DRAWINGS AS WELL AS REUSABLE ITEMS FOUND DURING CONSTRUCTION. SUCH ITEMS, IF ANY, SHALL BE DELIVERED TO THE PROPERTY OWNER AS DIRECTED BY THE ENGINEER AND/OR OWNER DURING CONSTRUCTION.

15. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AN EQUIPMENT STORAGE YARD. THE LOCATION OF THE YARD MUST BE APPROVED BY THE OWNER. NO DIRECT PAYMENT WILL BE MADE FOR THE YARD. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SITE SECURITY.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE FOR CONSTRUCTION UNLESS OTHERWISE PROVIDED. NO DIRECT PAYMENT WILL BE MADE FOR WATER. ALL PERMITS, FEES, EQUIPMENT, HAUL, ETC. RELATIVE TO OBTAINING WATER SHALL BE CONSIDERED INCIDENTAL.

17. THE CONTRACTOR SHALL TAKE ANY NECESSARY MEASURES TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS FROM DAMAGE DURING CONSTRUCTION. IF DURING EXECUTION OF THE PROJECT, THE CONTRACTOR'S ACTIVITIES DISTURB OR DESTROY SUCH MONUMENTS, THE CONTRACTOR SHALL RE-ESTABLISH THEM IN ACCORDANCE WITH ESTABLISHED STANDARDS AND PROCEDURES.

18. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING STRUCTURES FREE OF DUST AND/OR CONSTRUCTION DEBRIS AT ALL TIMES DURING THE EXECUTION OF THE PROJECT. ALL EXISTING AND NEW STRUCTURES SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. ALL COSTS RELATED TO THIS ITEM SHALL BE INCIDENTAL TO THE WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR.

19. CONTRACTOR SHALL REPAIR ANY EXISTING STRUCTURE OR UTILITY DAMAGED DURING THE EXECUTION OF THE PROJECT, AT NO ADDITIONAL COSTS TO THE OWNER.

20. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF MATERIALS AND EQUIPMENT PRIOR TO AND AFTER THEIR INSTALLATION AS APPLICABLE, UNTIL THE PROJECT'S FINAL ACCEPTANCE BY THE OWNER.

21. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR EROSION CONTROL INCIDENTAL TO THE CONSTRUCTION ACTIVITIES.

22. THE CONTRACTOR SHALL PREPARE AND MAINTAIN UP-TO-DATE "AS-BUILT" DRAWINGS AS PER THE CONTRACT DOCUMENTS. UPDATING SUCH DRAWINGS SHALL BE DONE NOT LESS THAN ONCE EVERY WEEK. THE OWNER AND ENGINEER'S PROJECT REPRESENTATIVES SHALL BE ALLOWED TO REVIEW THESE DRAWINGS AT ANY TIME DURING CONSTRUCTION. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER COMPLETE AS-BUILT DRAWINGS AS PER CONTRACT DOCUMENTS. TWO SETS OF "AS-BUILT DRAWINGS" WILL BE SUBMITTED, UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS. ANY EXISTING UTILITIES NOT SHOWN IN THESE DRAWINGS SHALL BE LOCATED AND SHOWN IN AS-BUILT DRAWINGS.

23. CONTRACTOR SHALL SUBMIT ASTM OR AASHTO CERTIFICATES OF MATERIAL'S COMPLIANCE TO THE OWNER'S PROJECT REPRESENTATIVE, NO LESS THAN 5 DAYS PRIOR TO INITIATING ANY WORK INVOLVING SUCH MATERIALS.

24. ANY EXCEPTIONS TO PLACEMENT OR DEPTH OF MATERIALS AND EQUIPMENT MUST BE AUTHORIZED BY THE ENGINEER.

25. TESTING SHALL BE PERFORMED BY THE CONTRACTOR AS PER CONTRACT DOCUMENTS.

26. OVER-EXCAVATION OF TRENCHES SHALL NOT BE PERFORMED UNLESS IT IS DETERMINED TO THE SATISFACTION OF THE ENGINEER THAT THE SUBSOIL IS NOT SUITABLE FOR PIPE BEDDING AND MUST BE REPLACED WITH IMPORTED FILL. OVER-EXCAVATION PERFORMED UNNECESSARILY BY THE CONTRACTOR SHALL BE REMEDIED WITH CLASSIFIED FILL AND COMPACTION AS REQUIRED BY THE SPECIFICATIONS. NO ADDITIONAL PAYMENT SHALL BE MADE FOR IMPORTED FILL UNDER ANY CIRCUMSTANCES.

27. ALL FINISHED SLOPES (BOTH SIDE-SLOPES AND ALONG THE CENTERLINE) SHALL BE 3:1 OR SHALLOWER.

28. IMPORTED PADDING AND BACK FILL MATERIAL, IF REQUIRED, SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE. SEPARATE PAYMENT WILL NOT BE MADE FOR PADDING AND BACK FILL MATERIAL OR HAUL. ALL PADDING AND BACK FILL MATERIAL OR HAUL SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS WORK ITEMS. THE CONTRACTOR SHALL SECURE A SUITABLE PADDING AND BACK FILL MATERIAL PIT IF MATERIAL IS REQUIRED TO COMPLETE THE PROJECT.

29. BACK FILL DENSITY TESTS SHALL BE PERFORMED AS PER SPECIFICATIONS. MINIMUM REQUIREMENTS ARE HORIZONTALLY FOR EACH 100 LINEAR FEET OF PIPELINE, OR ANY STRUCTURE THAT REQUIRES COMPACTED FOUNDATION OR CONTROLLED BACK FILL. ADDITIONAL COMPACTION TESTS SHALL ALSO BE TAKEN EVERY 3 VERTICAL FEET OF BACK FILL

30. CONTRACTOR SHALL WARRANTEE ALL MATERIALS AND LABOR FOR A PERIOD OF NOT LESS THAN 12 MONTHS FROM THE DATE OF FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT.

UTILITY NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE LOCATION OF ALL UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE GENERAL LOCATION OF KNOWN EXISTING UTILITIES HAS BEEN SHOWN ON THE CONSTRUCTION DRAWINGS TO INDICATE THAT CAUTION MUST BE EXERCISED WHEN WORKING IN THESE AREAS. IN MANY CASES THE EXACT LOCATION OF THE FACILITIES IS NOT KNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL OVERHEAD AND UNDERGROUND UTILITIES WITHIN THE VICINITY OF THE NEW CONSTRUCTION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR, WORKING WITH THE RESPECTIVE UTILITY COMPANIES, SHALL ACCURATELY LOCATE AND MARK ALL BURIED FACILITIES, INCLUDING SERVICE LINES. ALL EQUIPMENT LABOR, ETC. NECESSARY TO PROPERLY LOCATE THE EXISTING UTILITIES SHALL BE FURNISHED BY THE CONTRACTOR, THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICES ON VARIOUS BID ITEMS.

2. CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY LOCATION, PROTECTION, AND VERIFICATION. CONTRACTOR MUST NOTIFY NEW MEXICO ONE CALL SYSTEM, INC. AT 811 OR 1-800-321-2537 AND ALL LOCAL UTILITY PROVIDERS THREE (3) DAYS BEFORE STARTING UTILITY CONSTRUCTION.

3. THROUGHOUT THE LIFE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE EXISTING UTILITY SYSTEMS OPERATING. THE CONTRACTOR SHALL REPORT SHUTOFFS OF ANY OR ALL CONNECTIONS TO THE OWNER AND ENGINEER AT LEAST TWENTY-FOUR (24) HOURS IN ADVANCE OF THE SHUT-OFFS. ALL LOCAL RESIDENTS AND BUSINESSES SHALL BE CONTACTED BEFORE ANY DISCONNECTION OF ANY SERVICE. ANY INTERRUPTION OF SERVICE SHALL BE KEPT TO THE MINIMUM LENGTH OF TIME POSSIBLE.

4. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH NM GAS COMPANY (GAS), COMCAST (CABLE), AND CENTURY LINK (PHONE). CONTRACTOR SHALL PROVIDE TRENCHING AND BACKFILL FOR ALL UTILITIES.

UTILITY CONTACT INFORMATION:

ABCWUA	(505)-842-9287
PUBLIC SERVICE COMPANY OF NEW MEXICO	(888)-245-3659
NEW MEXICO GAS COMPANY	(888)-664-2726
CENTURY LINK	(866)-379-4985

ENVIRONMENTAL NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL ENVIRONMENTAL REQUIREMENTS IMPOSED BY THE NEW MEXICO ENVIRONMENTAL DEPARTMENT (NMED) AND ANY OTHER AGENCY WITH JURISDICTION OVER THE PROJECT AREA.

2. ALL WORK IN THE VICINITY OF LIVE STREAMS, WATER IMPOUNDMENTS, WETLANDS OR IRRIGATION SUPPLIES SHALL BE EFFECTED IN SUCH A MANNER AS TO MINIMIZE VEGETATION REMOVAL, SOIL DISTURBANCE AND EROSION. CROSSINGS OF LIVE STREAMS WITH HEAVY EQUIPMENT SHALL BE MINIMIZED, AS DETERMINED BY THE PROJECT MANAGER. EQUIPMENT REFUELING, MAINTENANCE AND CEMENT DUMPING IN THE VICINITY OF WATER COURSES IS STRICTLY PROHIBITED AND SHALL BE PERFORMED IN PROPER CONTAINMENT AREAS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING AND CLEANUP OF SPILLS ASSOCIATED WITH PROJECT CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, AND OTHER MATERIALS WHICH MAY BE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING PAST SPILLS ENCOUNTERED DURING CONSTRUCTION AND OF CURRENT SPILLS NOT ASSOCIATED WITH CONSTRUCTION. REPORTS SHALL BE MADE IMMEDIATELY TO THE NM ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE TEAM AT (505) 827-4308 OR (505) 470-3657 AND TO THE PROJECT ENGINEER. ANY UNREPORTED SPILLS IDENTIFIED AFTER CONSTRUCTION AND THE ASSOCIATED CLEANUP COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4. IN THE EVENT THAT THE CONTRACTOR ENCOUNTERS ITEMS OF HISTORICAL IMPORTANCE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY AND WORK IN THE AREA SHALL IMMEDIATELY CEASE UNTIL THE SITE CAN BE PROPERLY CLEARED.

5. ARCHAEOLOGICAL DISCOVERY: NO ARCHAEOLOGICAL SITES ARE TO BE EXCAVATED OR OTHERWISE DISTURBED. THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION-RELATED ACTIVITIES TO AREAS THAT HAVE RECEIVED PRIOR ARCHAEOLOGICAL CLEARANCE, AS INDICATED BY THE ENGINEER. IF A PREVIOUSLY UNIDENTIFIED ARCHAEOLOGICAL SITE IS DISCOVERED WITHIN THE APPROVED CONSTRUCTION RIGHT-OF-WAY, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THAT AREA AND NOTIFY THE ENGINEER. THE CONTRACTOR SHOULD BE AWARE OF HIS/HER RESPONSIBILITIES UNDER THE HISTORIC PRESERVATION ACT OF 1966.

DEFINITIONS

THE FOLLOWING DEFINITIONS SHALL APPLY TO THE PROJECT

1.	OWNER	CENTRAL NEW MEXICO COMMUNITY COLLEGE
2.	PRIMARY ENGINEER	CHAVEZ-GRIEVES CONSULTING ENGINEERS
3.	CIVIL ENGINEER	SOUDER MILLLER & ASSOCIATES
4.	CONTRACTOR	THE CONTRACTOR OR GENERAL CONTRACTOR NAMED IN THE CONSTRUCTION CONTRACT WITH OWNER.

COMPACTION REQUREMENTS

1. SEE GEOTEST REPORT NO. 1-60705 CNM COMMUNITY COLLEGE ST. CHARLES SITE DATED AUGUST 5, 2016 FOR SOIL CONDITIONS, OVEREXCAVATION REQUIREMENTS, COMPACTION REQUIREMENTS,AND OTHER CONCLUSIONS AND RECOMMENDATIONS.

LEGEND

EXISTING IMPROVEMENTS

- TELEPHONE BOX
- G — UNDERGROUND GAS LINE
- UNDERGROUND WATER LINE
- T — UNDERGROUND TELEPHONE LINE
- CHAINLINK FENCE
- X — BARBED WIRE FENCE
- BLOCK WALL
- WOVEN WIRE FENCE
- FIRE HYDRANT
- WM — WATER METER
- GV — GAS VALVE
- WV — WATER VALVE
- EXISTING BUILDINGS
- CONTROL POINTS

PROPOSED IMPROVEMENTS

- CURB AND GUTTER
- DRAINAGE FLOW DIRECTION
- STRIPING
- LOW POINT

ABBREVIATIONS

FL	FLOWLINE
TC	TOP OF CURB
TG	TOP OF GRADE
TOC	TOP OF CONCRETE
TW	TOP WALL
TYP	TYPICAL

BENCHMARK

HORIZONTAL AND VERTICAL CONTROL IS BASED ON NAD 83 CENTRAL ZONE. SEE SHEET C-003 FOR LOCATION OF CONTROL POINT.

BM 1

101
CP 101
N=1482861.28
E=1528061.17
EL=5145.33

CONTROL

THE CONTRACTOR SHALL ESTABLISH AND PRESERVE SECONDARY HORIZONTAL AND VERTICAL CONTROL.

INCIDENTAL NOTES

1. ADJUST EXISTING MANHOLES AND VALVE BOXES TO GRADE

2. MEETINGS TO COORDINATE WITH UTILITY COMPANIES.

SPECIFICATIONS

1. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION

PRIMARY ENGINEER

DAVID GRIEVES, P.E.
CHAVEZ-GRIEVES CONSULTING ENGINEER
4700 LINCOLN RD NE STE 102
ALBUQUERQUE, NM 87109
PHONE (505) 344-4080
FAX (505) 343-8759

CIVIL ENGINEER

AMY L.D. NIESE, PE
SOUDER, MILLER & ASSOCIATES
3451 CANDELARIA RD. NE, SUITE D
ALBUQUERQUE, NEW MEXICO 87107-1948
(505) 299-0942

OWNER

MARK RUSSELL
CNM PROJECT MANAGER
(505) 224-4000

EMERGENCY CONTACT NUMBERS

FIRE/POLICE/AMBULANCE 911

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CNM
Central New Mexico Community College

AMY L.D. NIESE
NEW MEXICO
15334
4/17/17
PROFESSIONAL ENGINEER

CNM MAIN CAMPUS
EROSION CONTROL-DRAINAGE IMPROVEMENTS COAL AVENUE
ALBUQUERQUE NEW MEXICO

REVISIONS

MARK	DATE	REVISION

GENERAL NOTES

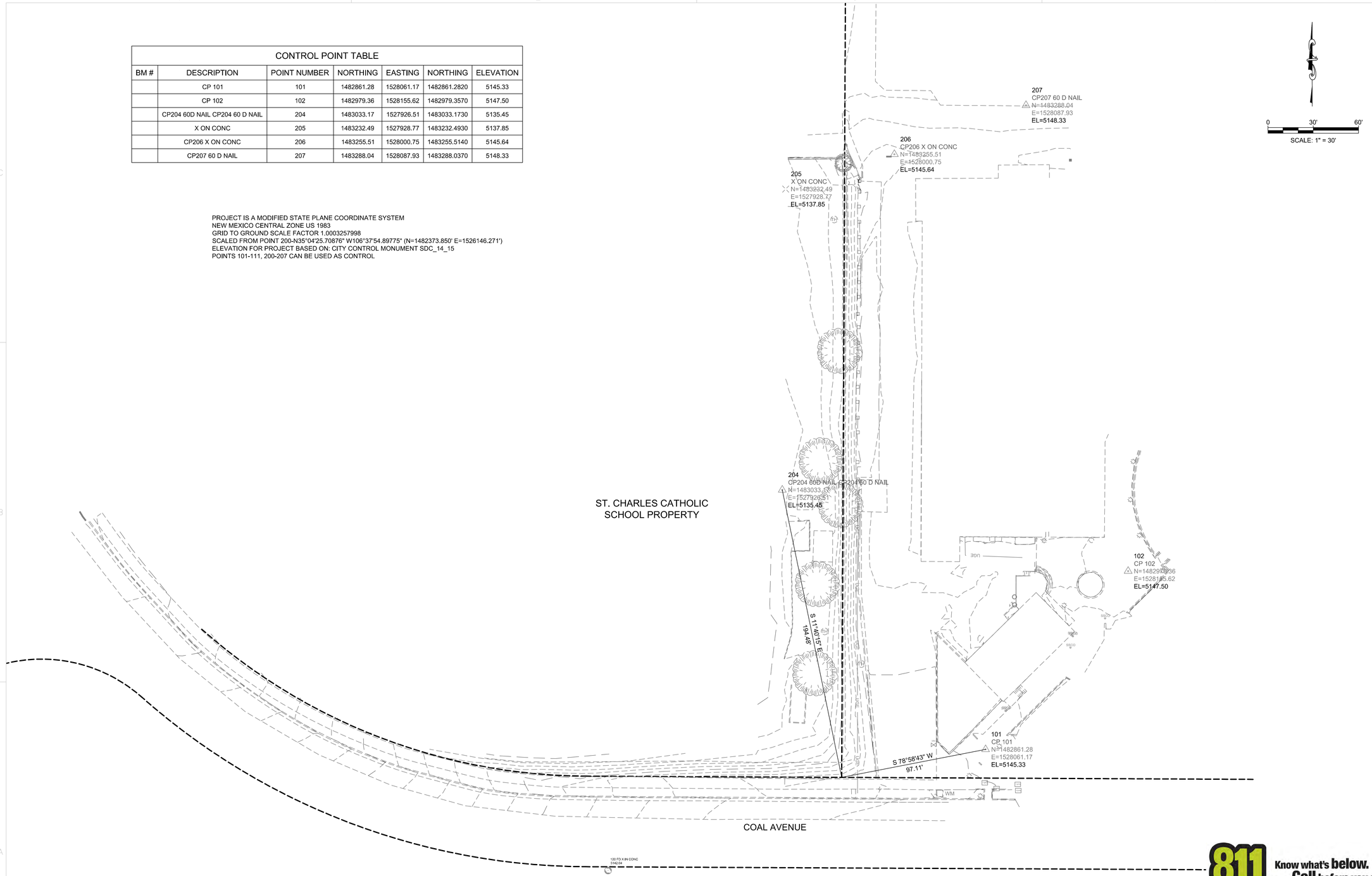
DESIGNED BY: ALDN	SCALE: NA
DRAWN BY: SFG	JOB NUMBER: 9424584
FILE NAME: 9424584 CGN.DWG	DATE: 4.17.2017

C-001

1 of 11

CONTROL POINT TABLE						
BM #	DESCRIPTION	POINT NUMBER	NORTHING	EASTING	NORTHING	ELEVATION
	CP 101	101	1482861.28	1528061.17	1482861.2820	5145.33
	CP 102	102	1482979.36	1528155.62	1482979.3570	5147.50
	CP204 60D NAIL CP204 60 D NAIL	204	1483033.17	1527926.51	1483033.1730	5135.45
	X ON CONC	205	1483232.49	1527928.77	1483232.4930	5137.85
	CP206 X ON CONC	206	1483255.51	1528000.75	1483255.5140	5145.64
	CP207 60 D NAIL	207	1483288.04	1528087.93	1483288.0370	5148.33

PROJECT IS A MODIFIED STATE PLANE COORDINATE SYSTEM
NEW MEXICO CENTRAL ZONE US 1983
GRID TO GROUND SCALE FACTOR 1.0003257998
SCALED FROM POINT 200-N35°04'25.70876" W106°37'54.89775" (N=1482373.850' E=1526146.271')
ELEVATION FOR PROJECT BASED ON: CITY CONTROL MONUMENT SDC_14_15
POINTS 101-111, 200-207 CAN BE USED AS CONTROL



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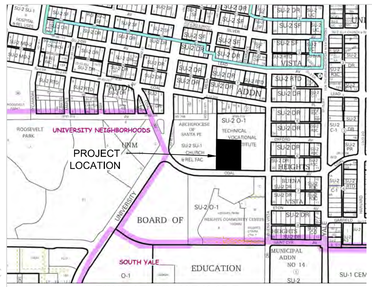
SURVEY CONTROL PLAN

DESIGNED BY: ALDN	SCALE: 1:30
DRAWN BY: SFG	JOB NUMBER: 9424584
FILE NAME: 9424584 CVH.DWG	DATE: 4.17.2017

C-003
3 of 11

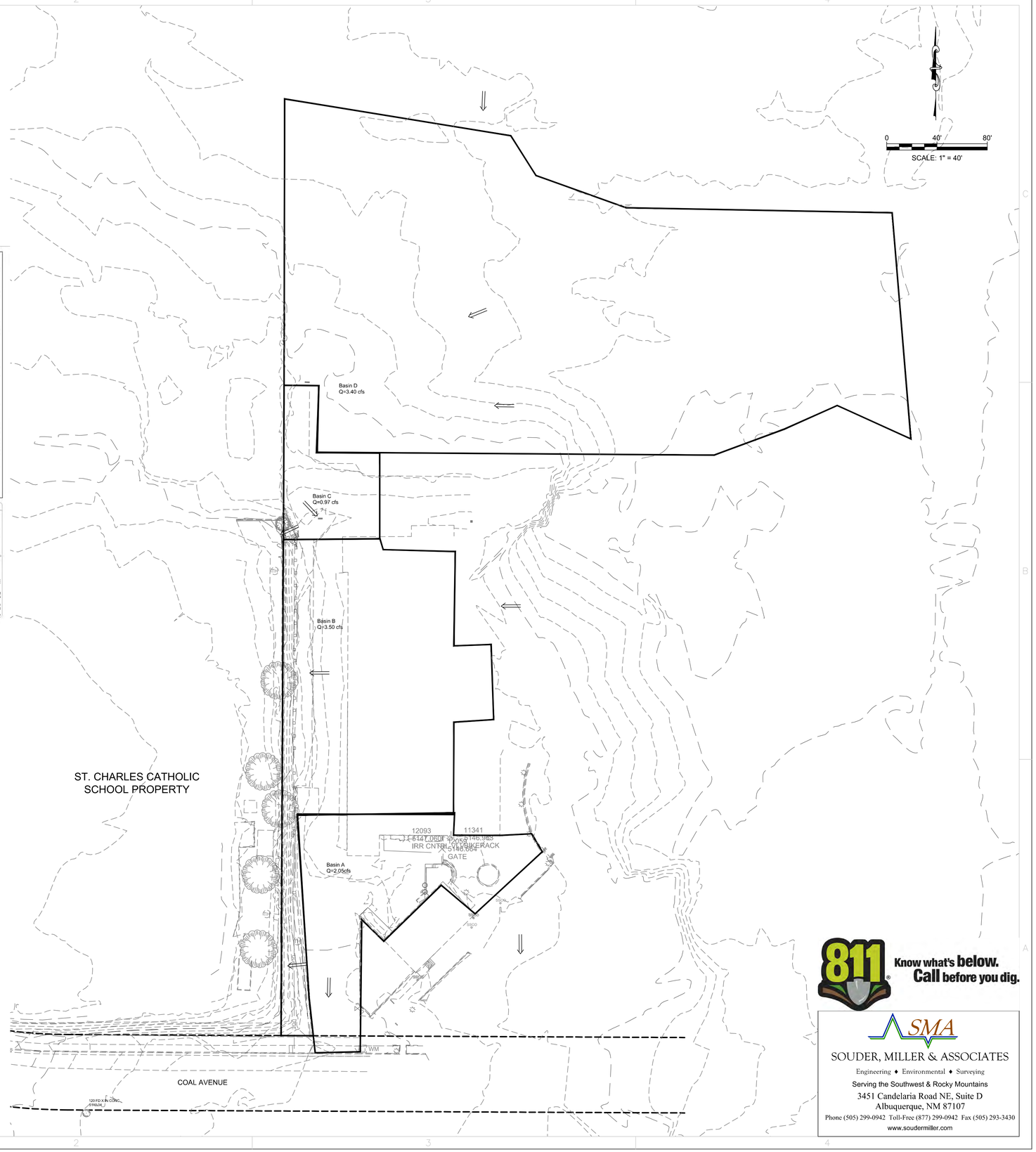


ZONE ATLAS MAP K-15-Z
NO SCALE

FEMA FLOOD INSURANCE RATE MAP 35001C0334G
NO SCALE

GENERAL NOTES:

1. ALL CONSTRUCTION PER CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. CONTRACTOR TO ACQUIRE ALL PERMITS AND APPROVALS NECESSARY FOR CONSTRUCTION.
3. SEE THE GEOTECHNICAL REPORT BY GEO-TEST FOR THIS SITE DATED AUGUST 5, 2016.
4. TOPOGRAPHICAL SURVEY PREPARED BY SMA AND CONTAINED IN THIS PLAN SET.
5. SEE THIS PLAN FOR RETAINING WALL ELEVATIONS. SEE STRUCTURAL PLAN FOR STRUCTURAL WALL DESIGN.
6. ALL GRADING SHALL BE COMPACTED TO MINIMUM OF 95% PER ASTM D-1557



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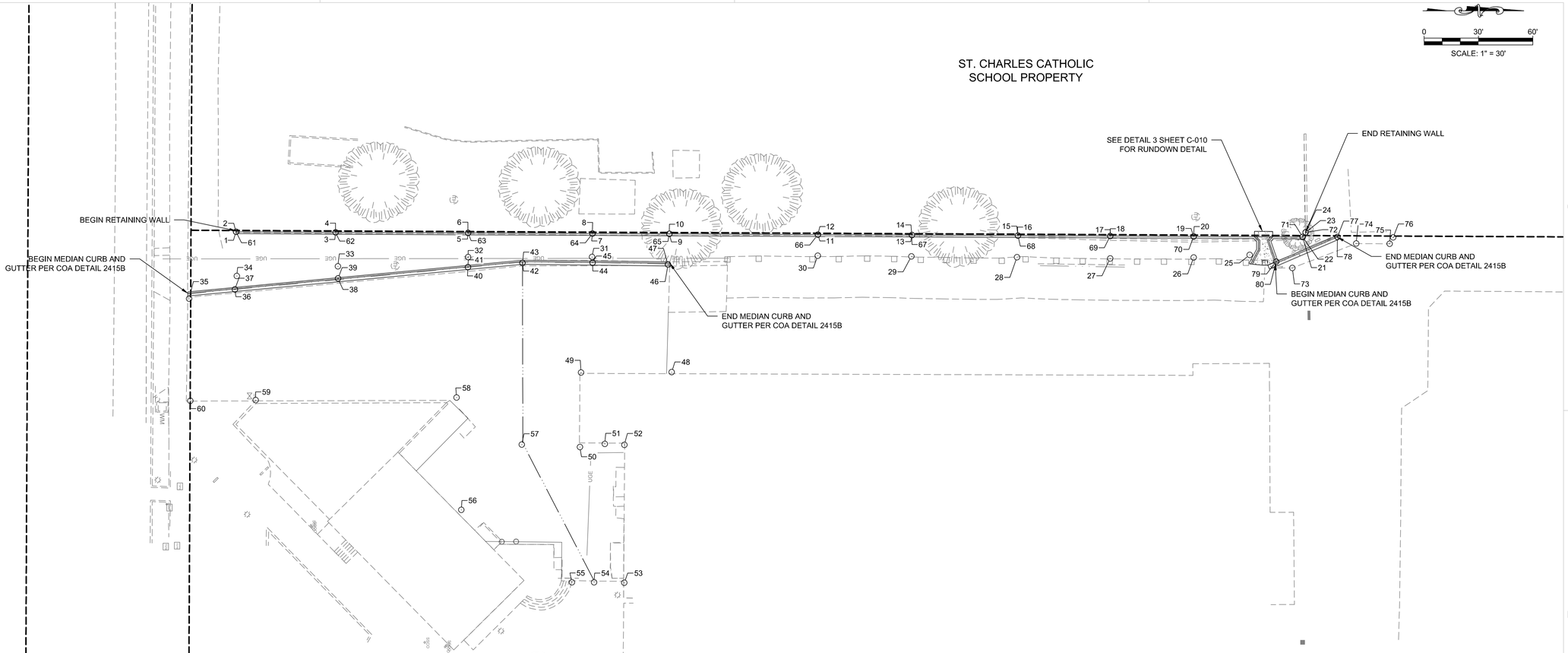
GRADING AND DRAINAGE PLAN

DESIGNED BY: ALDN	SCALE: 1" = 40'
DRAWN BY: SMA	JOB NUMBER: 9424584
FILE NAME: 9424584 CCG.DWG	DATE: 4.17.2017

C-007
7 of 11



POINT TABLE					
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION	REMARKS
1	5140.00	1482859.26	1527966.43	TGE	
2	5140.00	1482859.26	1527966.43	TGW	
3	5141.30	1482895.87	1527966.61	TGE	
4	5139.10	1482895.87	1527966.61	TGW	
5	5142.80	1482944.61	1527966.84	TGE	
6	5139.10	1482944.61	1527966.84	TGW	
7	5143.00	1482990.36	1527967.06	TGE	
8	5139.80	1482990.36	1527967.06	TGW	
9	5142.40	1483018.65	1527967.20	TGE	
10	5138.30	1483018.65	1527967.20	TGW	
11	5142.20	1483073.30	1527967.46	TGE	
12	5139.00	1483073.30	1527967.46	TGW	
13	5141.70	1483107.89	1527967.62	TGE	
14	5138.00	1483107.89	1527967.62	TGW	
15	5142.60	1483146.92	1527967.81	TGE	
16	5139.60	1483146.92	1527967.81	TGW	
17	5142.50	1483180.88	1527967.97	TGE	
18	5139.50	1483180.88	1527967.97	TGW	
19	5142.80	1483211.56	1527968.12	TGE	
20	5139.90	1483211.56	1527968.12	TGW	
21	5145.00	1483251.66	1527968.35	TGE	
22	5142.80	1483251.66	1527968.35	TGW	
23	5145.50	1483252.73	1527966.66	TGE	
24	5141.70	1483252.73	1527966.66	TGW	
25	5144.21	1483232.18	1527974.95	GS	
26	5144.78	1483211.54	1527975.87	GS	
27	5144.70	1483180.83	1527976.22	GS	

POINT TABLE					
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION	REMARKS
28	5144.68	1483146.56	1527975.76	GS	
29	5143.80	1483107.70	1527975.47	GS	
30	5144.16	1483073.27	1527975.24	GS	
31	5145.22	1482990.23	1527975.69	GS	
32	5145.20	1482944.62	1527975.72	GS	
33	5144.27	1482896.73	1527979.14	GS	
34	5144.32	1482859.55	1527982.68	GS	
35	5144.14	1482842.00	1527991.04	TA	
36	5144.78	1482858.83	1527987.61	TC	
37	5144.27	1482858.83	1527987.61	FL	
38	5145.07	1482896.78	1527983.60	TC	
39	5144.57	1482896.78	1527983.60	FL	
40	5145.46	1482944.56	1527979.42	TC	
41	5144.96	1482944.56	1527979.42	FL	
42	5145.62	1482964.64	1527977.88	TC	
43	5145.12	1482964.64	1527977.88	FL	MATCH EXISTING
44	5145.62	1482990.44	1527977.79	TC	
45	5145.11	1482990.44	1527977.79	FL	
46	5146.06	1483018.17	1527978.48	TC	
47	5145.56	1483018.17	1527978.48	FL	
48	5147.14	1483019.52	1528018.04	TA	MATCH EXISTING
49	5146.80	1482986.17	1528018.17	TA	MATCH EXISTING
50	5146.62	1482985.76	1528045.60	TA	
51	5146.70	1482994.92	1528044.42	TA	MATCH EXISTING
52	5146.78	1483002.10	1528044.79	TA	
53	5147.00	1483002.09	1528095.50	TA	MATCH EXISTING
54	5146.64	1482990.95	1528095.34	TA	MATCH EXISTING

POINT TABLE					
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION	REMARKS
55	5146.79	1482982.81	1528095.34	TA	MATCH EXISTING
56	5146.38	1482942.14	1528068.70	TA	MATCH EXISTING
57	5146.07	1482964.38	1528044.66	FL	
58	5145.70	1482940.38	1528027.39	TA	MATCH EXISTING
59	5144.92	1482866.48	1528028.33	TA	
60	5144.70	1482842.42	1528028.58	TA	MATCH EXISTING
61	5140.33	1482859.26	1527966.43	TW	
62	5141.63	1482895.87	1527966.61	TW	
63	5143.13	1482944.61	1527966.84	TW	
64	5143.33	1482990.36	1527967.06	TW	
65	5142.73	1483018.65	1527967.20	TW	
66	5142.53	1483073.30	1527967.46	TW	
67	5142.03	1483107.89	1527967.62	TW	
68	5142.93	1483146.92	1527967.81	TW	
69	5142.83	1483180.88	1527967.97	TW	
70	5143.13	1483211.56	1527968.12	TW	
71	5145.33	1483251.66	1527968.35	TW	
72	5145.83	1483252.73	1527966.66	TW	
73	5145.94	1483247.84	1527979.73	TA	
74	5146.97	1483271.34	1527970.74	TA	
75	5147.12	1483283.64	1527970.84	TA	
76	5147.29	1483284.93	1527968.49	TA	
77	5146.68	1483264.45	1527968.33	FL	
78	5147.18	1483264.45	1527968.33	TC	
79	5145.29	1483241.90	1527977.45	FL	
80	5145.79	1483241.90	1527977.45	TC	

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PROFESSIONAL ENGINEER

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EROSION CONTROL-DRAINAGE IMPROVEMENTS BASEHART SITE
ALBUQUERQUE NEW MEXICO

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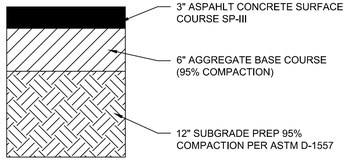
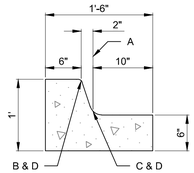
HORIZONTAL CONTROL PLAN

DESIGNED BY: ALDN	SCALE: 1" = 20'
DRAWN BY: SFG	JOB NUMBER: 9424584
FILE NAME: 9424584 CCC.DWG	DATE: 4.17.2017

C-008



1 PAVEMENT SECTION
Scale: NO SCALE



2 MEDIAN CURB AND GUTTER
Scale: NO SCALE

GENERAL NOTES:

1. CURBS, GUTTERS & CUT-OFF WALL TO BE CONSTRUCTED OF P.C.C.
2. FOR MEDIAN CURB & GUTTER PROVIDE CONTRACTION JOINTS 6' O.C. MAX., ALSO PROVIDE 1/2" EXPANSION JOINTS 48" O.C. MAX. AT CURB RETURNS & AT EACH SIDE OF DRIVEWAY.
3. EDGES NOT SPECIFIED DIMENSIONED SHALL BE EDGED WITH A 3/8" EDGING TOOL.

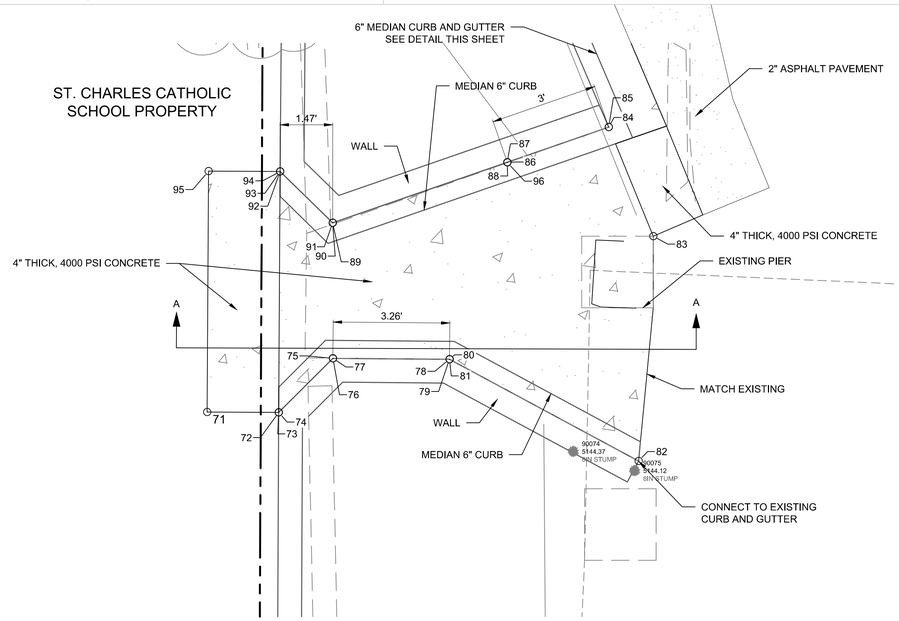
CONSTRUCTION NOTES:

A. THEORETICAL FACE OF CURB OR FLOWLINE.

B. ¾" RADIUS.

C. 2" RADIUS.

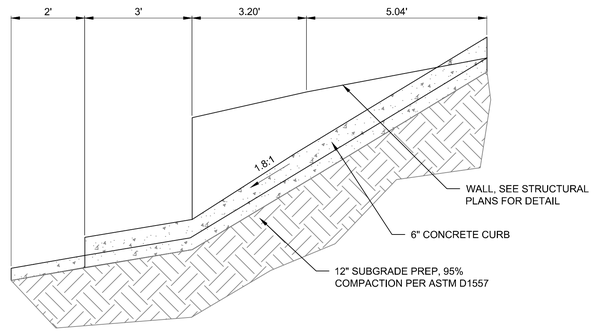
D. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.



3 COAL RUNDOWN
Scale: NO SCALE

POINT TABLE					
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION	REMARKS
71	5140.00	1483233.93	1527966.23	TC	
72	5142.63	1483233.92	1527968.23	TW	
73	5142.30	1483233.92	1527968.23	TGE	
74	5140.35	1483233.92	1527968.23	TGW	
75	5144.16	1483235.43	1527969.74	TW	
76	5143.83	1483235.43	1527969.74	TGS	
77	5140.85	1483235.43	1527969.74	FL	
78	5144.93	1483235.41	1527973.00	TW	
79	5144.63	1483235.41	1527973.00	TGS	
80	5143.29	1483235.41	1527973.00	TC	
81	5142.79	1483235.41	1527973.00	FL	
82	5145.88	1483232.56	1527978.29	FL	
83	5145.30	1483238.85	1527978.70	FL	
84	5145.79	1483241.90	1527977.45	TC	
85	5145.29	1483241.90	1527977.45	FL	
86	5144.54	1483240.91	1527974.62	TG	
87	5144.12	1483240.91	1527974.62	TC	
88	5143.62	1483240.91	1527974.62	FL	
89	5143.37	1483239.22	1527969.74	TW	
90	5143.04	1483239.22	1527969.74	TGN	
91	5140.85	1483239.22	1527969.74	FL	
92	5141.33	1483240.66	1527968.27	TW	
93	5141.00	1483240.66	1527968.27	TGE	
94	5140.35	1483240.66	1527968.27	TGW	
95	5140.00	1483240.67	1527966.27	TC	
96	5144.87	1483240.91	1527974.62	TW	

4 PAVEMENT SECTION
Scale: NO SCALE



SECTION A - A OF COAL RUNDOWN

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MISCELLANEOUS DETAILS

DESIGNED BY: ALDN	SCALE: NA
DRAWN BY: SFG	JOB NUMBER: 9424584
FILE NAME: 9424584 CMD.DWG	DATE: 4.17.2017

C-010
10 of 11