CITY OF ALBUQUERQUE

Hydrology Section Planning Department
David S. Campbell, Director

Timothy M. Keller, Mayor

September 28, 2018

Verlyn Miller, P.E.
Miler Engineering Consultants
3500 Comanche NE, Building F
Albuquerque, NM, 87107

RE: Fire Station #9
Grading and Drainage Plan
Engineer's Stamp Date: 09/14/2018
Hydrology File: H20D043

Mr. Miller,

Based upon the information provided in your submittal received 09/21/2018, the Grading and Drainage Plan cannot be approved for Site Plan for Building Permit, Building Permit, Work Order, or Grading Permit until the following comments are addressed.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

1. A Site Plan for Building Permit must be submitted to DRB and an Infrastructure List must be unanimously approved by the Board.
2. A Work Order will be required for the frontage improvements, so an SO-19 permit cannot be issued for this site. The SO-19 notes must be removed from the plan.
3. The drainage design of the Menaul Blvd infrastructure must be approved by Hydrology prior to approval of an Infrastructure List by the DRB. A Site Plan for Building Permit must be submitted to DRB. Additional offsite drainage basins must be identified and drainage infrastructure must be designed to accommodate the flows. The complete limits of the frontage improvements must be shown. Typical sections of the frontage improvements must be included on the plan with dimensions to the property lines and specifications for the improvements. Valley gutters must be added to the plan. The existing topo must be extended to the limits of the frontage improvements and at least 50' beyond. If the frontage improvements are being designed separately then that design must be approved before this plan can be permitted.
4. The parking lot on the north side of the building cannot be constructed in Menaul Blvd Right of Way as shown. The vacated portion of the Menaul right of way must be shown on the G&D Plan and the parking lot may not encroach into the right of way. The grading and drainage plan must identify new paths for the public drainage, and if it crosses the private property public drainage easements must be granted on the plat that will finalize the vacation. An additional private drainage easement must be shown on

Orig: Drainage File

the plat with maintenance and beneficiary for the southerly flow path through this lot. Provide a copy of the plat with the next hydrology submittal.

5. This site has two drainage outfalls, one to Menaul Blvd at the northwest corner of the site and the second to Towner Ave through the southwest corner of the site. Onsite drainage basins to each outfall must be identified on the basin map. Calculations of the 100 year peak flow rates to each outfall must be shown on the plan together with hydraulic calculations demonstrating the adequacy of the conveyance systems.
6. The discussion of the existing and proposed drainage conditions and the conclusions should be modified to address both outfalls. Downstream capacity must be addressed in the discussion and be supported by calculations. If detention ponds are used to mitigate increased flows then a drainage report is required to include pond volume calculations and hydrographs.
7. Each first flush pond should be sized for 0.34" of runoff from the impervious area draining to it. The City doesn't give credit for extra volume in a pond over and above that which is required for the impervious area draining into it. Roof drainage patterns and drainage basins must be identified for the area draining to each pond and for any area that doesn't drain to a pond. A waver may be requested for impervious surfaces not meeting the required first flush volume together with justification for requesting the waiver. The waiver request must state the area of impervious that won't drain to a pond and the associated first flush volume. Put all of the required first flush calculations together in one location on the G&D Plan.
8. The proposed contours must be labeled in the ponds and pond volume calculations must be included on the plan based on the area inside each contour.
9. Both the first flush and the 100 year water surface elevations must be labeled on each pond. Hydraulic calculations are required for the overflow from each pond to determine the 100 year elevation and to demonstrate the adequacy of the pond outfall structures. Typical sections, details, and construction specifications must be included on the plan for the pond outfall structures, and all other conveyance structures. Hydraulic calculations are also required for the rundowns into the ponds.
10. Typical sections are required for the north, south, east, and west boundaries showing the property line, existing and proposed grades, and horizontal and vertical maximum and minimum dimension. Include typical sections through ponds, retaining walls, and the adjacent sidewalk, curb and gutter, paving and valley gutters. Wall footings must not encroach into adjacent property without written permission from the neighbor.

If you have any questions, please contact me at 924-3986 or e-mail jhughes@cabq.gov.

Sincerely,

James D. Hughes, P.E.
Principal Engineer, Planning Dept.
Development and Review Services

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: FIRE STATION 9 Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: 18-EPC-40037 Work Order#: _____ UPC # 102005944024341-526

Legal Description: PORT OF PARCEL D WITHIN LT 23 BLK 31 SNOW Heights

City Address: 9500 SNOW HEIGHTS CIRCLE NE, ALB NM 87112 ZONE PAGE H-20-Z

Applicant: City of Albuquerque Contact: _____

Address: 1 CIVIC PLAZA NW, ALBUQUERQUE NM 87102

Phone#: 505-768-3000 Fax#: 505-768-3019 E-mail: _____

Other Contact: MILLER ENGINEERING CONSULTANTS Contact: VERLYN MILLER

Address: 3500 COMANCHE NE, Bldg F ALBUQUERQUE, NM 87107

Phone#: 505-888-7500 Fax#: 505-888-3800 E-mail: vmiller@mecnm.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ___ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes __X__ No

DEPARTMENT _____ TRANSPORTATION __X__ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

___ ENGINEER/ARCHITECT CERTIFICATION
___ PAD CERTIFICATION
___ CONCEPTUAL G & D PLAN
X GRADING PLAN
X DRAINAGE REPORT
___ DRAINAGE MASTER PLAN
___ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
___ ELEVATION CERTIFICATE
___ CLOMR/LOMR
___ TRAFFIC CIRCULATION LAYOUT (TCL)
___ TRAFFIC IMPACT STUDY (TIS)
___ STREET LIGHT LAYOUT
___ OTHER (SPECIFY) _____
___ PRE-DESIGN MEETING?

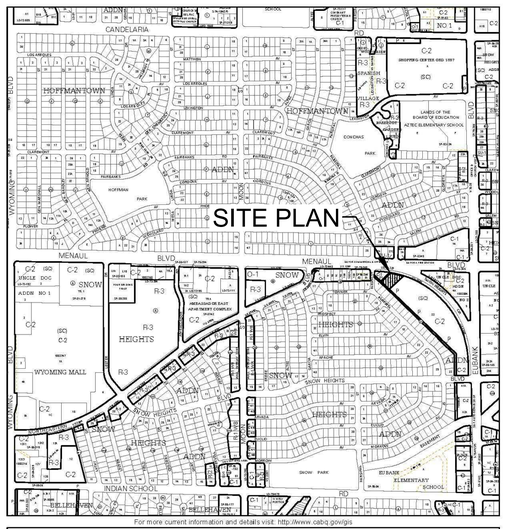
TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

___ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY
X PRELIMINARY PLAT APPROVAL
___ SITE PLAN FOR SUB'D APPROVAL
___ SITE PLAN FOR BLDG. PERMIT APPROVAL
___ FINAL PLAT APPROVAL
___ SIA/ RELEASE OF FINANCIAL GUARANTEE
___ FOUNDATION PERMIT APPROVAL
___ GRADING PERMIT APPROVAL
___ SO-19 APPROVAL
___ PAVING PERMIT APPROVAL
___ GRADING/ PAD CERTIFICATION
___ WORK ORDER APPROVAL
___ CLOMR/LOMR
___ FLOODPLAIN DEVELOPMENT PERMIT
___ OTHER (SPECIFY) _____

DATE SUBMITTED: 9/21/18 By: _____

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



C1 VICINITY MAP

ZONE ATLAS MAP H-17-C

SITE LOCATION

THE PROPOSED SITE IS LOCATED ON SNOW HEIGHTS CIRCLE STREET AND MENAUL BOULEVARD. THE SITE CURRENTLY CONSISTS OF A VACANT LOT WITH NO DEVELOPMENT. THE SITE IS BOUND BY MENUAL BLVD. AND SNOW HEIGHTS CIRCLE ON THE NORTH SIDE, RESIDENTIAL DEVELOPMENT ON THE SOUTH SIDE, AN EXISTING COMMERCIAL DEVELOPMENT ON THE EAST AND WEST SIDES. THE PROPOSED DEVELOPMENT WILL INCLUDE A NEW FIRE STATION.

EXISTING ON SITE CONDITIONS

THE EXISTING SITE IS CURRENTLY UNDEVELOPED AND IS COVERED WITH SPARSE VEGETATIVE COVER. THE LACK OF VEGETATION SUGGESTS THAT THE SITE IS EXPERIENCING DISTURBANCE FROM HUMAN ACTIVITY. THERE IS A SMALL LOW POINT AT THE WESTERN PORTION OF SITE WITH AN EXISTING DRAIN INLET. IT IS UNKNOWN IF THE INLET IS CONNECTED TO ANYTHING, IT APPEARS TO BE POSSIBLY CONNECTED TO SOME TYPE OF FRENCH DRAIN. EXISTING STORM WATER FLOWS SHEET FLOW WEST TOWARD THE EXISTING LOW POINT. THERE IS A SIGNIFICANT OFFSITE DRAINAGE BASIN OF APPROXIMATELY 10 ACRES THAT DISCHARGE TO THE SOUTHWEST CORNER OF THE SITE. THE OFFSITE FLOWS ARE ROUTED THROUGH THE WESTERN PORTION OF THE SITE NORTH TO THE ADJACENT PROPERTY AND EVENTUALLY DOWNSTREAM TO PARSIFAL STREET.

PROPOSED CONDITIONS

THE PROPOSED IMPROVEMENTS WILL INCLUDE A NEW FIRE STATION, DRIVEWAY, ASSOCIATED PARKING, AND CONCRETE HARDSCAPE. SITE DRAINAGE WILL BE ROUTED VIA OVERLAND FLOW TOWARD TWO WATER HARVEST AREAS (WATER QUALITY PONDS) LOCATED NEAR THE WESTERN EDGE OF THE SITE. THESE WATER HARVESTING AREAS WILL BE USED TO MANAGE THE 90TH PERCENTILE STORM EVENTS (REQUIRED VOLUME = (0.34 IN. * 32,945 SF)/12 = 933 CF). OVERFLOW FROM THE PONDING AREAS WILL SPILL THROUGH A CONCRETE SPILLWAY ON THE PROPOSED RETAINING WALL SECTION. OFFSITE DRAINAGE TO THE SITE WILL BE COLLECTED IN A NEW TRAPEZOIDAL CONCRETE CHANNEL SYSTEM AND ROUTED THROUGH THE SITE TO ITS HISTORICAL LOCATION.

CONCLUSION

THE INCREASED RUNOFF FROM THE PROPOSED BUILDING ADDITION IS ESTIMATED AT 0.064 ACRE-FEET AND 0.76 CFS DURING THE 100-YEAR EVENT. THE INCREASED RUNOFF FROM THE PROPOSED PROJECT WILL BE RETAINED BY THE TWO WATER HARVEST PONDING AREAS, WHICH WILL HELP ALLEVIATE INCREASED FLOW DOWNSTREAM. THE INCREASE IN STORM WATER RUNOFF FROM THE PROPOSED PROJECT SHOULD NOT ADVERSELY IMPACT ADJACENT OR DOWNSTREAM PROPERTIES.

THE PROPOSED WATER HARVEST AREAS VOLUME IS APPROXIMATELY 1200 CUBIC FEET, WHICH IS GREATER THAN THE REQUIRED FIRST FLUSH VOLUME OF 1166 CUBIC FEET. ALL ROOF DRAINAGE AND PROPOSED ASPHALT PARKING AREAS WILL DISCHARGE INTO WATER HARVEST AREAS LOCATED AT THE WEST SIDE OF THE PROJECT SITE.

GENERAL NOTES:

1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY CSI CARTESIAN SURVEYS, INC. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
2. ACS STA A-438 BENCH MARK THE TOP OF A STAINLESS STEEL ROD SET BENEATH A 5-1/2" NGS ACCESS COVER STAMPED "A-438 1984" SET FLUSH WITH THE GROUND, LOCATED IN THE NORTHWEST QUADRANT OF MENAUL BOULEVARD AND THE A.T. & S.F. RAILROAD TRACKS INTERSECTION. ELEV. 4975.35 (NAVD 1988)

   TBM FOUND 1/2" REBAR WITH CAP "LS 11463" ELEV. 4965.21
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
6. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
7. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
8. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. APPROX. HALF OF SUBJECT PROPERTY IS LOCATED WITHIN ZONE X (SOUTH EASTERN ¾ OF 4TH STREET FRONTAGE). THE REMAINING WESTERN AND NORTHERN PORTION OF THE PROPERTY IS LOCATED IN ZONE X (500 YEAR) DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 0332G.
10. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
11. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
12. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXTING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
16. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
18. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
19. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
20. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1)
21. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

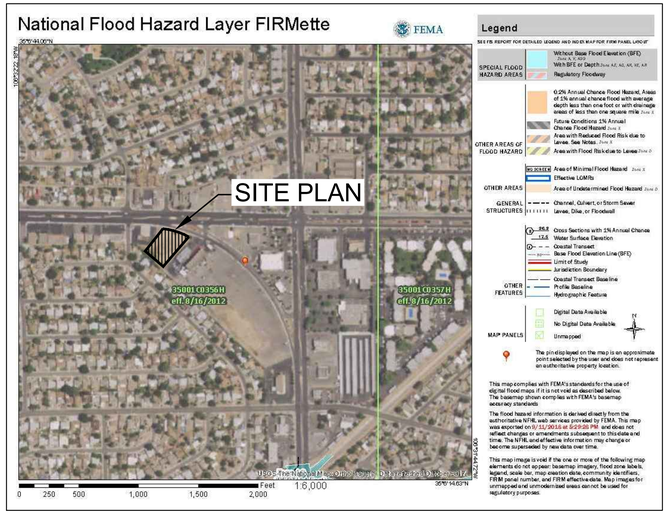
SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 AMENDMENT 1.
3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
4) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACT SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5) BACK FILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 – HOUR BASIS.
8) CONTRACTOR MUST CONTACT JASON RODRIGUEZ AT 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION

B1 OFF SITE-1 MAP

ZONE ATLAS MAP H-20-C



A1 FLOOD ZONE MAP

FLOOD ZONE MAP: 35001C0356H

DRAINAGE DATA

HYDROLOGY

Precipitation Zone 3 - 100-year Storm P(360) = 2.6 in P(1440) = 3.1 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
OS-1	10.00	0.00	0.00	1.00	9.00	2.25	1.878	2.253	48.63
Site	1.06	0.00	0.00	0.80	0.26	1.55	0.137	0.148	4.07
Total	**11.06**								**52.70**
Proposed Conditions									
Site	1.06	0.00	0.00	0.31	0.75	2.05	0.181	0.212	4.83
Total	**1.06**								**4.83**

Precipitation Zone 3 - 10-year Storm P(360) = 1.73 in P(1440) = 2.07 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
OS-1	10.00	0.00	0.00	1.00	9.00	1.41	1.177	1.552	32.51
Site	1.06	0.00	0.00	0.80	0.26	0.84	0.074	0.081	2.48
Total	**11.06**								**34.99**
Proposed Conditions									
Site	1.06	0.00	0.00	0.31	0.75	1.24	0.110	0.141	3.16
Total	**1.06**								**3.16**

City of Albuquerque Electronic Stamp

SURVEY INFORMATION — FIELD NOTES — NO. / BY / DATE:

BENCH MARKS

AS-BUILT INFORMATION — CONTRACTOR / DATE / WORK STAKED BY / DATE / INSPECTOR'S ACCEPTANCE BY / DATE / FIELD VERIFICATION BY / DATE / DRAWINGS CORRECTED BY / DATE

MICRO-FILM INFORMATION — RECORDED BY / DATE / NO.

SEAL

NO.	DATE	REMARKS	BY
	SEPT. 20, 2018		

DESIGN — Designed By: DATE: / Drawn By: DATE: / Checked By: DATE:

VIGIL & ASSOCIATES ARCHITECTURAL GROUP, P.C.
4477 Irving NW, Suite A
Albuquerque, New Mexico 87114
Ph: 505.890.5030 - Fax: 505.890.5031
www.VA-architects.com

MILLER ENGINEERING CONSULTANTS
Engineers • Planners
3500 COMANCHE, NE
BUILDING F
ALBUQUERQUE, NM 87107
(505)888-7500
(505)888-3800 (FAX)
WWW.MECNM.COM

CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

AFD FIRE STATION 9
9500 SNOW HEIGHTS CIRCLE NE, ALBUQUERQUE, NM 87112

file name:

Drawing Title

GRADING AND DRAINAGE HYDROLOGY REPORT

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.
			7/10/18

Issue Date: **SEPTEMBER 14, 2018**

City Project No. **5476.91**

Sheet **C-100**

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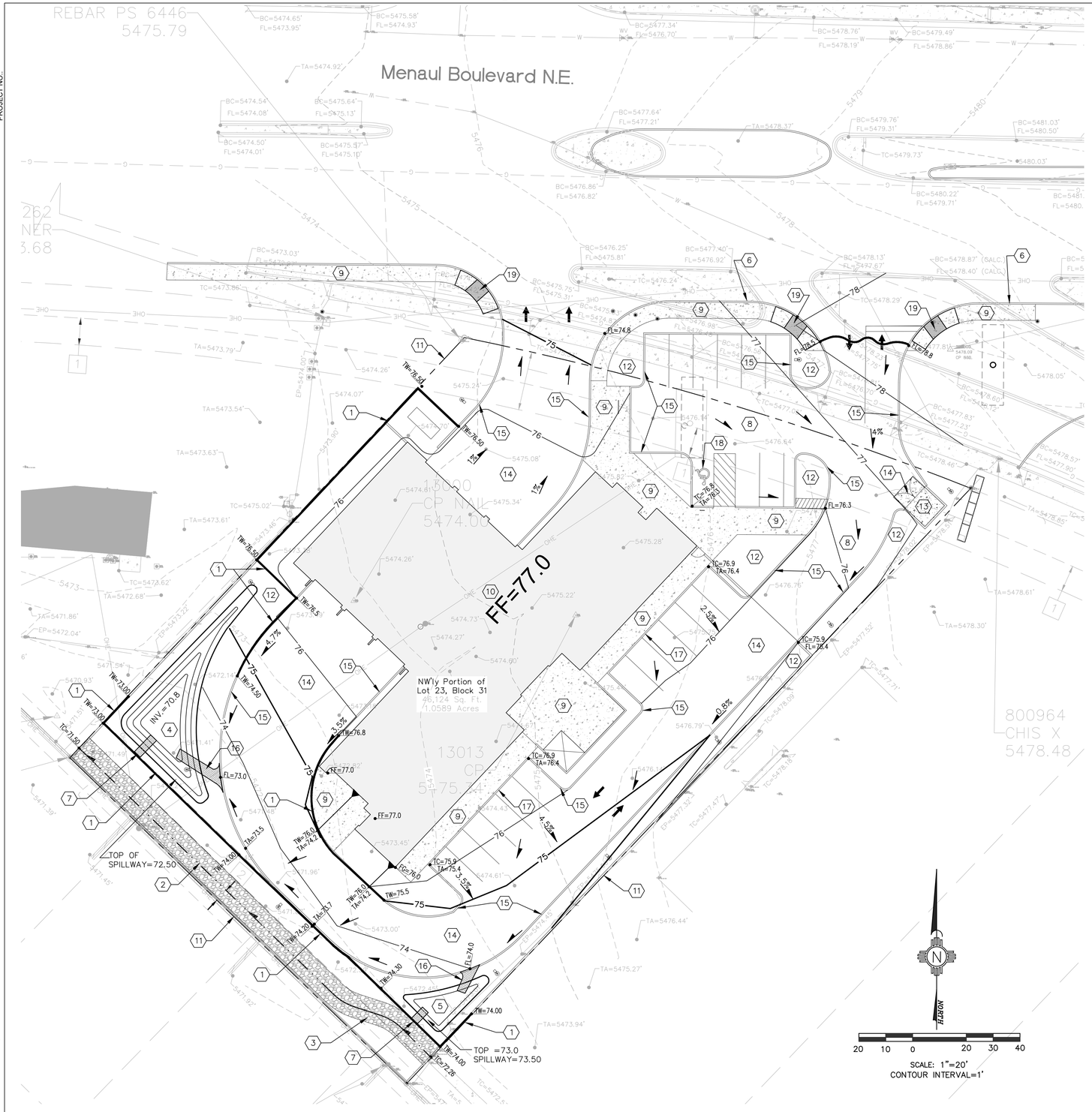

A1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 20'

LEGEND:

38.00 FG	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)
MATCH (95.19)	MATCH EXISTING ELEVATIONS
TCON	TOP OF CONCRETE
FL	FLOW LINE, CURB
INV	INVERT
FG	FINISH GRADE
TBC	TOP OF BASE COURSE
TC	TOP OF CURB
TG	TOP OF GRATE
TA	TOP OF ASPHALT
	FLOW ARROW
	GRADE BREAK–HIGH POINT
	SWALE
SD	STORM DRAIN LINE
5895	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
5895	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	TOP OF CUT SLOPE

GRADING AND DRAINAGE NARRATIVE

THE EXISTING PROPERTY FOR FIRE STATION #9 IS LOCATED AT 9500 SNOW HEIGHTS CIRCLE N.E. THE SITE IS ACCESSED FROM EAST BOUND LANES OF MENUAL BLVD. N.E. THE SITE CURRENTLY CONSISTS OF A VACANT LOT WITH NO DEVELOPMENT. THE SITE IS BOUND BY MENUAL BLVD. AND SNOW HEIGHTS CIRCLE ON THE NORTH SIDE, RESIDENTIAL DEVELOPMENT ON THE SOUTH SIDE, AN EXISTING COMMERCIAL DEVELOPMENT ON THE EAST AND WEST SIDES. THE LAND SLOPES MILDLY FROM THE NORTHEAST TO THE SOUTHWEST CORNER OF THE SITE. THERE ARE EXISTING OFFSITE FLOWS DISCHARGING TO THE SITE FROM AN ESTIMATED 10–ACRE OFFSITE DRAINAGE BASIN LOCATED EAST OF THE SITE. THE PROPOSED BUILDING WILL BE CONSTRUCTED NEAR THE CENTER OF THE SITE WITH AN ASPHALT PARKING LOT LOCATED ON THE EAST AND THE NORTH OF THE PROPOSED BUILDING.

THE PROPOSED GRADING IMPROVEMENTS WILL INCLUDE STANDARD CURB AND GUTTER, WITH CURB CUTS AND RUNDOWNS ALLOWING STORMWATER INTO PROPOSED WATER HARVESTING AREAS. THESE WATER HARVESTING AREAS WILL BE USED TO MANAGE THE 90TH PERCENTILE STORM EVENTS (REQUIRED VOLUME = (0.34 IN. * 41,151 SF)/12 = 1166 CF). THE PROPOSED WATER HARVEST AREAS VOLUME IS APPROXIMATELY 1200 CUBIC FEET, WHICH IS GREATER THAN THE REQUIRED FIRST FLUSH VOLUME OF 1166 CUBIC FEET. ALL ROOF DRAINAGE AND PROPOSED ASPHALT PARKING AREAS WILL DISCHARGE INTO WATER HARVEST AREAS LOCATED AT THE WEST SIDE OF THE PROJECT SITE.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A FEMA DESIGNATED FLOOD ZONE AS PER FEMA MAPS.

KEYED NOTES:

1. NEW RETAINING WALL SEE DETAIL SHEET C–501
2. NEW CONCRETE CHANNEL. SEE DETAIL SHEET C–501. S=0.4%, W=10', D=18".
3. OFFSITE DRAINAGE CORRIDOR.
4. FIRST FLUSH POND #1 SEE DETAIL SHEET C–501. VOL=1200CF D=24"
5. FIRST FLUSH POND #2 SEE DETAIL SHEET C–501. VOL=400CF D=12"
6. NEW RIGHT TURN DECEL LANE.
7. PROVIDE 3' WIDE X 6" DEEP CUT–OUT IN TOP OF WALL FOR OVERFLOW EMERGENCY SPILLWAY. SEE DETAIL SHEET C–501.
8. NEW HEAVY DUTY HOT MIX ASPHALT PAVEMENT SECTION. SEE SECTION DETAILS ON SHEET C–501.
9. NEW CONCRETE SIDEWALK/FLATWORK. SEE ARCHITECTURAL PLANS FOR DETAILS. CONTRACTOR SHALL SUBMIT A JOINT PATTERN TO THE PROJECT ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
10. NEW BUILDING SEE ARCHITECTURAL PLANS FOR DETAILS.
11. LOCATION OF PROPERTY LINE.
12. LANDSCAPE AREA SEE ARCHITECTURAL PLANS FOR DETAILS.
13. NEW TRASH ENCLOSURE SEE ARCHITECTURAL PLANS FOR DETAILS.
14. NEW HEAVY DUTY CONCRETE PAVING SEE DETAIL SHEET C–501.
15. NEW STANDARD CURB AND GUTTER. SEE DETAIL SHEET C–501.
16. NEW 3' WIDE RIP RAP RUNDOWN SEE DETAIL SHEET C–501.
17. NEW THICKENED EDGE ON CONCRETE SIDEWALK. SEE DETAIL SHEET C–501.
18. NEW HANDICAPPED PARKING SPACES 2% MINIMUM SLOPE IN EACH DIRECTION.
19. NEW HANDICAP RAMP SEE C.O.A. STD. DWG. 2418.

City of Albuquerque Electronic Stamp

SURVEY INFORMATION — FIELD NOTES — DATE: — NO. — BY

BENCH MARKS

AS-BUILT INFORMATION — CONTRACTOR — DATE — WORK STAKED BY — DATE — INSPECTOR'S ACCEPTANCE BY — DATE — FIELD VERIFICATION BY — DATE — DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION — RECORDED BY — DATE — NO.

SEAL

NO.	DATE	REMARKS	BY
	SEPT. 26, 2018		

DESIGN — Designed By: DATE: — Drawn By: DATE: — Checked By: DATE:

VIGIL & ASSOCIATES
ARCHITECTURAL GROUP, P.C.
4477 Irving NW, Suite A
Albuquerque, New Mexico 87114
Ph: 505.890.5030 - Fax: 505.890.5031
www.VA-architects.com

CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

AFD FIRE STATION 9
9500 SNOW HEIGHTS CIRCLE NE,
ALBUQUERQUE, NM 87112

file name: G & D_101817.dwg

Drawing Title
GRADING AND DRAINAGE PLAN

MILLER ENGINEERING CONSULTANTS
Engineers • Planners
3500 COMANCHE, NE
BUILDING F
ALBUQUERQUE, NM 87107
(505)888–7500
(505)888–3800 (FAX)
WWW.MECNM.COM

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
			7/10/18	
Issue Date: SEPTEMBER 14, 2018	City Project No. 5476.91	Sheet	C-101	

PROJECT NO:

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