

# CITY OF ALBUQUERQUE

*Planning Department*  
Brennon Williams, Director



*Mayor Timothy M. Keller*

November 21, 2019

Kevin M. Hall, P.E.  
Cypress Civil Development  
2030 E. Speedway Blvd. Ste 110  
Tucson, AZ 85719

**RE: Generations at West Mesa  
5710 Avalon Rd NW  
Permanent C.O. - Accepted  
Engineer's Certification Dated 11/20/19  
Engineer Stamp Date: 04/11/18  
Hydrology File: K11D084**

PO Box 1293

Dear Mr. Hall:

Albuquerque

Based on the Certification received 11/20/19 and site visit on 11/21/19, this certification is approved in support of Permanent Release of Occupancy by Hydrology.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

NM 87103

Sincerely,

[www.cabq.gov](http://www.cabq.gov)

Renée C. Brissette, P.E. CFM  
Senior Engineer, Hydrology  
Planning Department



DRAINAGE CERTIFICATION

I, KEVIN HALL, NMPE 23149, OF THE FIRM CYPRESS CIVIL DEVELOPMENT, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 2018-06-11. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY THOMAS D. JOHNSTON, NMPS 14269, OF THE FIRM WAYJOHN SURVEYING, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 2019-11-14 AND 2019-11-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

DURING THE SITE VISIT ON 2019-11-15 CYPRESS CIVIL PROVIDED THE CONTRACTOR WITH A LIST OF MINOR CORRECTIONS TO BE MADE, IDENTIFIED DURING THE SITE VISIT. THE REQUESTED CORRECTIONS HAVE SINCE BEEN ADDRESSED AND CONFIRMED FOR COMPLIANCE ON 2019-11-19.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

KEVIN HALL, NMPE 23149



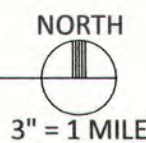
DATE 2019-11-20

KEY PLAN



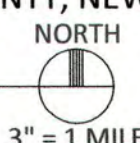
PANEL 0329H DATED: AUGUST 16, 2012

F.I.R.M.



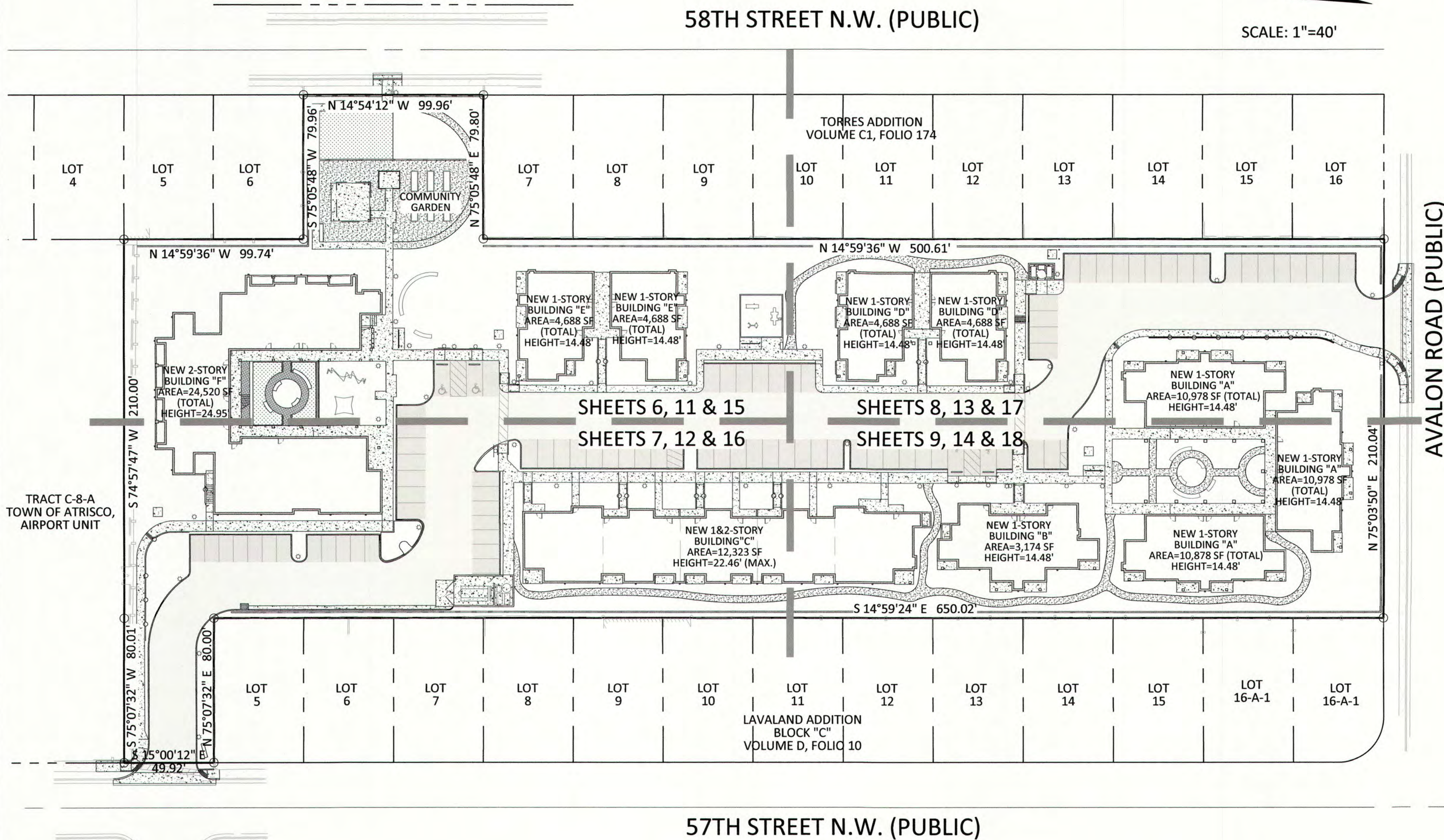
IN PROJECTED SECTION 23, T. 10 N., R. 2 E., N.M.P.M., CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

LOCATION MAP



LEGEND

PROJECT BOUNDARY	EXISTING UNDERGROUND ELECTRIC
RIGHT-OF-WAY	EXISTING OVERHEAD ELECTRIC
OTHER PARCEL LINE	EXISTING GAS LINE
ROADWAY CENTERLINE	EXISTING SEWER MANHOLE
EXISTING EASEMENT	EXISTING SEWER CLEANOUT
NEW EASEMENT	EXISTING WATER METER
EXISTING CONTOUR	EXISTING BACKFLOW PREVENTER
NEW CONTOUR	EXISTING WATER VALVE
SPOT ELEV. (NEW GRADE)	EXISTING FIRE HYDRANT
SPOT ELEV. (EXIST. GRADE)	EXISTING TRANSFORMER
GRADING LIMITS	EXISTING POWER POLE
FLOW-LINE	EXISTING GAS VALVE
EXISTING PAVEMENT EDGE	EXISTING GAS METER
EXISTING CURB	NEW SEWER
EXISTING PAINT STRIPE	NEW WATER
EXISTING CONCRETE	NEW FIRE SERVICE
EXISTING FENCE	NEW UNDERGROUND ELECTRIC
EXISTING RAILING	NEW COMMUNICATION LINE
NEW CURB	NEW GAS LINE
NEW PAINT STRIPE	NEW SIGN
NEW ASPHALT	NEW STREET/TRAFFIC LIGHT
NEW CONCRETE	NEW SEWER CLEANOUT
NEW RIP RAP	NEW WATER METER
NEW FENCE	NEW BACKFLOW PREVENTER
NEW RAILING	NEW FIRE HYDRANT
NEW WALL	NEW FIRE CONNECTION
EXISTING SIGN	NEW ELECTRIC METER
EXISTING STREET/TRAFFIC LIGHT	NEW ELECTRIC PEDESTAL
EXISTING STORM DRAIN MANHOLE	NEW TRANSFORMER
EXISTING STORM DRAIN PIPE	NEW GAS METER
EXISTING SEWER	SURVEY MONUMENTATION AS NOTED
EXISTING WATER	SURVEY MONUMENTATION TO BE SET
EXISTING FIRE SERVICE	
FIRST FLUSH RETENTION LIMITS	



PROJECT OVERVIEW PLAN



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2

ARCHITECTURE / DESIGN / INSPIRATION

DEKKER  
PERICH  
SABATINI

7601 JEFFERSON NE, SUITE 100  
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ENGINEER

CYPRESS  
CIVIL DEVELOPMENT

2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER



PROJECT

GENERATIONS  
AT WEST MESA  
5710 Avalon Road, NW  
Albuquerque, NM 87105

100% CONSTRUCTION  
DOCUMENTS

REVISIONS

04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED

DRAWN BY

JR

REVIEWED BY

KMH

DATE

04/06/2018

PROJECT NO

14-0701

DRAWING NAME

GRADING AND DRAINAGE  
COVER SHEET

SHEET NO

C001



GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION THROUGH UPDATE #9, AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
2. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS ISSUED BY THE CITY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. CONTRACTOR SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
5. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
6. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
7. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION ENGINEER (OR PROJECT MANAGER) NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. ONLY THE CITY SURVEYOR SHALL REPLACE SURVEY MONUMENTS. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO STANDARD SPECIFICATIONS SECTION 4.4.
8. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT TO DMD, CONSTRUCTION COORDINATION DIVISION, A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE DMD, CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF STANDARD SPECIFICATIONS. PERMIT REQUESTS MAY BE DENIED OR DELAYED DUE TO CONFLICTS WITH OTHER PROJECTS IN THE AREA. [CIP JOBS]
9. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
10. CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF "AS BUILT" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
11. CONTRACTOR SHALL ASSUME FINANCIAL RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, SIGNAGE, CURB AND GUTTER, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE, PER THE STANDARD SPECIFICATIONS, ANY SUCH DAMAGE.
12. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2

GENERAL NOTES (cont.)

13. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY AND OTHER JURISDICTIONAL AUTHORITIES WHERE APPLICABLE.
14. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING. EXISTING VALVES AND MANHOLES SHALL NOT BE BURIED OR PAVED OVER BUT RIMS SHALL BE ADJUSTED TO MATCH NEW GRADE PER COA STANDARD DRAWINGS 2460 AND 2461.
15. MANHOLE RIMS, FIRE HYDRANT ELEVATIONS, AND FLANGE ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.
16. THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT HTTP://ABCWUA.ORG NVATER SHUT OFF AND TURN ON PROCEDURES.ASPX
17. PROPOSED WATERLINE MATERIALS SHALL BE PVC PIPE MEETING AWWA C-900: DR18 REQUIREMENTS (6" -12") OR DUCTILE IRON PIPE MEETING AWWA C-150 REQUIREMENTS (6" -48").
18. ALL WATERLINE FITTINGS, VALVES, BENDS, TEES, CROSSES AND APPURTENANCES SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON THE PLANS. THE JOINT RESTRAINT REQUIREMENTS SHOULD BE DELINEATED WITHIN A JOINT RESTRAINT TABLE.
19. ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY STANDARD SPECIFICATIONS SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2465.
20. ELECTRONIC MARKER SPHERES (EMS) WILL BE PLACED ACCORDING TO THE CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #9.
21. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL PERTINENT EXISTING UTILITIES AND/OR OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
22. CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND EMS AT THE END OF EACH SANITARY SEWER SERVICE.
23. CONTRACTOR SHALL PROVIDE THE PROPOSED HYDRO TESTING PLANS TO THE WUA INSPECTORS FOR APPROVAL PRIOR TO BEGINNING TESTING OPERATIONS.
24. AT UTILITY CROSSINGS, WHERE LESS THAN 18" OF VERTICAL SEPARATION FROM STORM DRAIN PIPING OR STRUCTURES IS PROPOSED, LEAN FILL CONSTRUCTION (PER SECTION 207 OF THE STANDARD SPECIFICATIONS) SHALL BE USED TO PROTECT THE WATER OR SEWER LINE. LEAN FILL SHALL EXTEND A PERPENDICULAR DISTANCE OF 5 FEET ON EACH SIDE OF THE STORM PIPE OR STRUCTURE.
25. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO THE SAME LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET.
26. REMOVAL OF EXISTING CURB & GUTTER AND SIDEWALKS SHALL BE TO THE NEAREST JOINT.
27. ANY DAMAGE TO THE EXISTING CURB & GUTTER, PAVEMENT, SIDEWALKS, STRIPING, AND SIGNAGE DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
28. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
29. CURB AND GUTTER, SIDEWALKS, AND DRIVE PADS SHALL MATCH THE LINE AND GRADE OF ABUTTING EXISTING AREAS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.
30. THE SUBGRADE PREP SHALL EXTEND ONE FOOT BEYOND THE FREE EDGE OF NEW CURB AND GUTTER AND SIDEWALK.
31. CONTRACTOR TO TEST SUBGRADE R-VALUE PRIOR TO CONSTRUCTION. IN THE EVENT THE R-VALUE IS LESS THAN 50, REMOVE 2 FEET OF SUBGRADE MATERIAL AND IMPORT MATERIAL WITH R-VALUE GREATER THAN 50 OR CONTACT THE ENGINEER IMMEDIATELY SO THE PAVEMENT SECTION CAN BE MODIFIED.

GENERAL NOTES(cont.)

32. AT ALL PAVEMENT REMOVAL AND REPLACEMENTS, SAW-CUT EDGES SHALL BE STRAIGHT AND CLEAN, AND LONGITUDINAL JOINTS SHALL NOT BE PLACED WITHIN WHEEL PATHS. PATCHES SHALL BE REGULAR AND SQUARE OR RECTANGULAR, WITH FOUR STRAIGHT SIDES. FINISHED PAVEMENT SURFACE SHALL BE FLUSH WITH EXISTING PAVEMENT SURFACE, WITH NO SPILLOVER OF ASPHALT OR TACK COAT. CARE MUST BE TAKEN TO AVOID DAMAGING THE INTEGRITY OR APPEARANCE OF SURROUNDING PAVEMENTS; IF DAMAGED, THE ENTIRE SURFACE PATCH MUST BE EXPANDED TO COVER DAMAGES.
33. CONTRACTOR WILL ENSURE THE ASPHALT HAS A SMOOTH, UNIFORM EDGE WHEN REMOVING AND REPLACING CURB AND GUTTER. IF THE ASPHALT EDGE IS NOT SMOOTH AND UNIFORM, CONTRACTOR WILL SAW CUT AND REPLACE A ONE-FOOT STRIP OF ASPHALT ALONG THE FULL SECTION BEING REPLACED; REFER TO C.O.A. STANDARD DRAWING# 2465 WITH THE APPROPRIATE PAVING SECTION BASED ON ROADWAY CLASSIFICATION.
34. TWO WEEKS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHOULD NOTIFY THE TRANSIT DEPARTMENT OF ANY IMPACT THE PROPOSED PROJECT WILL HAVE ON THE TRANSIT SYSTEM SUCH AS CAUSING A DETOUR, OR CAUSE THE CLOSING OR RELOCATION OF A BUS STOP. THE CONTACT PERSON IS DOUGLAS GOFF, OFFICE PHONE 505-724-3137, CELL PHONE 505-206-0151, AND E-MAIL DGOFF@CABQ.GOV .
35. CONTRACTOR SHALL SECURE A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.
36. CONTRACTOR SHALL DETERMINE IN ADVANCE OF CONSTRUCTION IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC. ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION TO CONSTRUCTION OPERATIONS IS EVIDENT, CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF CONTRACTOR.
37. PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.
38. EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND AS SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND THE INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
39. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFORE. CONTRACTOR SHALL FIELD-VERIFY THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES.
40. CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWER LINE COSTS.
41. CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST TO THE OWNER. CABLE IS TO BE SUPPORTED AT A MAXIMUM SPACING OF FIFTEEN (15) FEET. CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.
42. ALL FINAL BACKFILL FOR TRENCHES WITHIN THE COA RIGHT-OF-WAY SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY STANDARD SPECIFICATIONS SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2465.
43. CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS TO PREVENT ANY EXCAVATED MATERIAL BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
44. REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
45. CONTRACTOR SHALL CONDUCT ALL WORK IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC.
46. ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC., WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED AND RE-SET BY THE CONTRACTOR.

GENERAL NOTES(cont.)

47. IF CULTURAL RESOURCES, SUCH AS HISTORIC OR PREHISTORIC ARTIFACTS, OR HUMAN REMAINS ARE DISCOVERED DURING EXCAVATION OR CONSTRUCTION, WORK SHALL CEASE AND THE CONSTRUCTION ENGINEER SHALL NOTIFY THE COUNTY OFFICE OF THE MEDICAL EXAMINER AT (505)272-3053. IF THE MEDICAL EXAMINER DETERMINES THAT HUMAN REMAINS ARE NOT PRESENT, THE CONSTRUCTION ENGINEER SHALL NOTIFY THE STATE HISTORIC PRESERVATION OFFICER (SHPO) AT 827-6320.
48. IF OBJECTS OF HISTORICAL, ARCHAEOLOGICAL, PALEONTOLOGICAL AND OTHER OBJECTS OF ANTIQUITY ARE ENCOUNTERED, CONTRACTOR SHALL CEASE OPERATIONS AND IMMEDIATELY NOTIFY OWNER AND PROJECT ENGINEER.

GENERAL PAVING + GRADING NOTES

1. UTILITY LOCATIONS, AS SHOWN ON THE PLANS, WERE COMPILED AND ARE PRESENTED BASED UPON PRELIMINARY INFORMATION AVAILABLE TO CYPRESS CIVIL DEVELOPMENT. UTILITY LOCATIONS AS SHOWN ARE NOT INTENDED TO BE EXACT OR COMPLETE AND CYPRESS CIVIL DEVELOPMENT DOES NOT ACCEPT LIABILITY OR RESPONSIBILITY FOR ANY INACCURACIES IN THE UTILITY LOCATIONS OR ANY UTILITY RELOCATIONS THAT MAY BE NECESSARY. PRIOR TO EXCAVATION, NEW MEXICO STATUTES REQUIRE THAT ANYONE WHO INTENDS TO EXCAVATE MUST PROVIDE TWO FULL WORKING DAYS NOTICE TO THE OWNERS OF ALL UTILITIES WITHIN THE PROJECT AREA. EXCAVATORS SHOULD CONTACT "NEW MEXICO 811 DAMAGE AND PREVENTION CENTER" @ 1-800-321-ALERT (2537) TWO (2) FULL WORKING DAYS PRIOR TO EXCAVATION. SATURDAYS, SUNDAYS, AND STATE HOLIDAYS ARE NOT CONSIDERED WORKING DAYS. ALSO BE ADVISED THAT THERE MAY BE OTHER UTILITIES IN THE PROJECT AREA THAT ARE NOT MEMBERS OF "NEW MEXICO 811 DAMAGE AND PREVENTION CENTER". THE CONTRACTOR IS RESPONSIBLE TO POTHOLE ALL UTILITIES (SHOWN OR NOT SHOWN ON THE PLANS) MARKED BY NEW MEXICO 811 PRIOR TO COMMENCING CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY GOVERNMENT AGENCIES.
3. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
4. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN AN ACCESSIBLE LOCATION ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE OF EXISTING IMPROVEMENTS AND VEGETATION IN THE WORK AREA. PAVEMENT, CURBS, AND ANY OTHER OBSTRUCTION DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR.
6. UPON COMMENCEMENT OF WORK, TRAFFIC CONTROL DEVICES SHALL BE POSTED AND MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME AS THE WORK IS COMPLETED. ALL WARNING SIGNS, BARRICADES, ETC. SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PER COA STANDARD SPECIFICATION SECTION 19.
7. IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION AND ARE BEYOND THE SCOPE OF THE DESIGN, THE OWNER SHALL BE NOTIFIED IMMEDIATELY.
8. CONTRACTOR TO EXHIBIT EXTREME CAUTION WHEN EXCAVATING TO AVOID DAMAGING EXISTING UTILITY LINES IN AND AROUND THE AREA OF WORK. UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE AND NOT COMPLETE BUT ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME THIS PLAN WAS DESIGNED.
9. CONTRACTOR SHALL ADJUST BOTH EXISTING AND NEW WATER VALVES, BOX COVERS, WATER METER BOXES, SANITARY SEWER MANHOLE AND CLEAN-OUT RING AND COVERS, TELEPHONE AND ELECTRIC MANHOLE RING AND COVERS AND ANY OTHER UTILITY INFRASTRUCTURE TO THE NEW FINISHED GRADE.
10. PROJECT EARTHWORK (UNADJUSTED)(APPROXIMATE):

TOTAL CUT	TOTAL FILL	COMPOSITE
12,992 CY	1,192 CY	11,800 CY(C)

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALCULATE HIS OWN EARTHWORK QUANTITIES AND SUBMIT HIS BID THEREON. EARTHWORK QUANTITIES SHOWN HEREON ARE ESTIMATED FOR PERMITTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING OR PAYMENT QUANTITIES.
11. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES, INCLUDING EXCAVATION, BORROW EMBANKMENT, SHRINK OR SWELL, GROUND COMPACTION, HAUL AND ANY OTHER ITEMS AFFECTING THE BID TO COMPLETE THE GRADING TO THE ELEVATIONS SHOWN ON THESE PLANS AND TO BASE THE BID SOLELY UPON HIS OWN CALCULATED QUANTITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER/DEVELOPER PRIOR TO CONSTRUCTION OF ANY MAJOR DISCREPANCIES ON THE PLANS. ALL GRADE ADJUSTMENTS SHALL BE APPROVED IN WRITING BY THE OWNER PRIOR TO MAKING ANY CHANGES.
12. THE PERMITTEE SHALL NOTIFY THE CITY OF ALBUQUERQUE WHEN THE GRADING OPERATION IS READY FOR FINAL GRADING INSPECTION. FINAL GRADING APPROVAL SHALL NOT BE GIVEN UNTIL ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE IMPROVEMENTS, UTILITY TRENCHES ARE BACKFILLED, PRIVATE PAVING AND CURB, PERMANENT PROTECTIVE DEVICES, ALL EROSION CONTROL MEASURES HAVE BEEN COMPLETED, AND ALL CONDITIONS OF PERMITS ARE COMPLETED.
13. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING CYPRESS CIVIL AT 520-499-2456.

GENERAL PAVING + GRADING NOTES (cont.)

14. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A SMOOTH SURFACE AND UNIFORM CROSS-SECTION. THE SLOPE OF THE EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS SHOWN ON THE PLANS AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPES SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, HAUL AND APPLY ALL WATER REQUIRED FOR COMPACTION AND FOR THE CONTROL OF DUST FROM THE CONSTRUCTION ACTIVITY. THE COST THEREOF IS TO BE INCLUDED IN THE GRADING CONSTRUCTION PRICE.
16. THE GRADING CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL BENEATH ALL DECOMPOSED GRANITE AREAS SO THAT THE FINISHED SURFACE OF THE DECOMPOSED GRANITE WILL MATCH THE FINISHED SURFACE ELEVATION AS CALLED OUT ON THESE PLANS. WATER HARVESTING AREAS SHALL BE KEPT LOW TO ACHIEVE FULL DEPTH OF WATER HARVESTING TO THE FINISHED SURFACE OF THE DECOMPOSED GRANITE.
17. CYPRESS CIVIL HEREBY CERTIFIES THAT ALL FINISHED GRADED AND PAVED AREAS CONTAINED WITHIN THIS DEVELOPMENT ARE DESIGNED WITH SLOPES OF AT LEAST 0.5%. CYPRESS CIVIL FURTHER CERTIFIES THAT THE PROPOSED DESIGN PROVIDES POSITIVE DRAINAGE THROUGHOUT THE DEVELOPMENT EXCEPT WITHIN DETENTION/RETENTION AREAS OR WATER HARVESTING AREAS SPECIFIED WITHIN THE APPROVED DRAINAGE ANALYSIS FOR THIS PROJECT.
14. ALL ELEVATIONS ARE AT FINISH SURFACE OF PROPOSED ASPHALT (P). ADD 0.5' FOR THE ADJACENT TOP OF CURB/CONCRETE (TC/C) ELEVATION UNLESS OTHERWISE SHOWN.
15. CURB RADII ARE MEASURED TO FRONT FACE OF CURB.
16. ALL DIMENSIONS FOR PARKING AREA ACCESS LANES AND PARKING SPACES AS SHOWN ON THE PLAN ARE MEASURED AT THE GUTTER LINE.
17. AGGREGATE BASE COURSE SHALL CONFORM TO COA STANDARD SPECIFICATION SECTION 302.
18. ASPHALTIC CONCRETE SHALL CONFORM TO COA STANDARD SPECIFICATION SECTION 116.
19. ALL CONCRETE SHALL CONFORM TO THE MINIMUM COMPRESSIVE STRENGTH AS SPECIFIED IN TABLE 101.C OF SECTION 101, UNLESS OTHERWISE SPECIFIED.
20. PARKING AREA PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION. THE PAINT SHALL BE WHITE UNLESS OTHERWISE INDICATED OR AS REQUIRED BY THE MUTCD.
21. THE APPROVED GRADING AND DRAINAGE PLAN IS THE ONLY ACCEPTABLE CONSTRUCTION PLAN ON SITE. THE CONTRACTOR MAY NOT USE ANY OTHER PLANS. FOR CONSTRUCTION PURPOSES, THE CONTRACTOR MAY ASK THE COA INSPECTOR TO CONSULT WITH THE OTHER APPROVED PLANS FOR ADDITIONAL INFORMATION OR DETAILS THAT MIGHT NOT BE INCLUDED ON THE APPROVED GRADING AND DRAINAGE PLAN BUT NEEDED FOR COMPLETION OF WORK.
26. THE CONTRACTOR IS NOT PERMITTED TO MAKE AN AUTONOMOUS DECISION TO CARRY OUT CONSTRUCTION FIELD CHANGES WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD AND THE CITY OF ALBUQUERQUE DEVELOPMENT REVIEW SERVICES DEPARTMENT.
27. THE PERMITTEE SHALL NOTIFY THE CITY OF ALBUQUERQUE WHEN THE GRADING OPERATION IS READY FOR FINAL GRADING INSPECTION. FINAL GRADING APPROVAL SHALL NOT BE GIVEN UNTIL ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE IMPROVEMENTS, UTILITY TRENCHES ARE BACKFILLED, PRIVATE PAVING AND CURB, PERMANENT PROTECTIVE DEVICES, ALL EROSION CONTROL MEASURES HAVE BEEN COMPLETED, AND ALL CONDITIONS OF PERMITS ARE COMPLETED.

For As-Built Only:



*Kevin M. Hall*



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ENGINEER



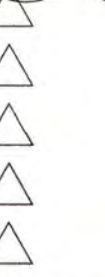
PROJECT

GENERATIONS  
AT WEST MESA  
5710 Avalon Road, NW  
Albuquerque, NM 87105

100% CONSTRUCTION DOCUMENTS

REVISIONS

04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED



DRAWN BY	JR
REVIEWED BY	KMH
DATE	04/06/2018
PROJECT NO	14-0701

DRAWING NAME

GRADING AND DRAINAGE NOTES

SHEET NO

C002



EARTHWORK/MATERIALS TESTING + CERTIFICATION

1. A GEOTECHNICAL ENGINEERING INVESTIGATION, INCLUDING RECOMMENDATIONS FOR GRADING PROCEDURES HAS BEEN PREPARED BY VANN ENGINEERING INC. ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED IN SAID REPORT, DATED DECEMBER 20 ,2017, PROJECT NO. 25592.
2. THE CONTRACTOR SHALL RETAIN THE SERVICES OF, AND FACILITATE THE WORK OF, AN INDEPENDENT ENGINEERING TESTING LABORATORY ACCEPTABLE TO PROVIDE THE CONSTRUCTION TESTING OF THE PROJECT EARTHWORK, ASPHALT PAVEMENT AND CIVIL CONCRETE. THE GEOTECHNICAL ENGINEER SHALL VERIFY THAT INITIAL SITE CONDITIONS CONFORM WITH THE PLANS AND SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES OBSERVED SHOULD ANY SOIL CONDITION ON THE SITE BE SUSPECT OF DETRIMENTAL CHARACTERISTICS. THE CONTRACTOR SHALL BE NOTIFIED OF CONCERNS AT LEAST TWENTY-FOUR (24) HOURS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN ON THE AFFECTED AREA.
3. DURING THE COURSE OF CONSTRUCTION, TEST RESULTS SHALL BE SUBMITTED TO THE CONTRACTOR WHICH INDICATE IF WORK IS BEING DONE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.

TYPICAL SLOPE TREATMENT	
SLOPE GRADIENT	TREATMENT
3:1 OR FLATTER	REVEGETATED WITH NATIVE SPECIES OR PROVIDE OTHER GROUND COVERS SUCH AS NETTING OR CRUSHED ROCK
2:1 TO 3:1	HAND-PLACED RIP RAP OVER FILTER FABRIC
1:1 TO 2:1	GROUTED OR WIRE-TIED RIP RAP
1:1 OR STEEPER	STABILITY ANALYSIS OR RETAINING WALL DESIGNED BY STRUCTURAL ENGINEER

NOTES:  
- SLOPE GRADIENTS ARE HORIZONTAL TO VERTICAL  
- FINAL SLOPE TREATMENT SHALL BE AS PER THIS TABLE **UNLESS OTHERWISE NOTED** ON THIS PLAN OR WITHIN THE GEOTECHNICAL REPORT.  
- SEE RIP RAP NOTES FOR SPECIFICATIONS.

RIP RAP NOTES

1. RIP RAP MATERIAL SHALL CONFORM TO COA STANDARD SPECIFICATION SECTION 109. RIP RAP MATERIAL SHALL BE WELL GRADED, VARYING IN SIZE FROM 4 TO 8 INCHES (d<sub>50</sub>=6"). THE RIP RAP LAYER SHALL BE 12 INCHES (2d<sub>50</sub>) MINIMUM THICKNESS.
2. THE GROUT FOR THE RIP RAP SHALL CONFORM TO COA STANDARD SPECIFICATION SECTION 106. THE TOTAL GROUT AND RIP RAP LAYER SHALL BE A MINIMUM THICKNESS OF 2.5d<sub>50</sub> (d<sub>50</sub>=6"). GROUT THICKNESS SHALL BE EQUAL TO 1.0d<sub>50</sub> AND RIP RAP ROCK SHALL BE EMBEDDED TO A DEPTH OF 0.5d<sub>50</sub>.
3. FINISH GRADE ("FG") CALLOUTS ARE TO TOP OF RIP RAP, IN APPLICABLE AREAS.

SWPPP NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FULLY COMPLY WITH THE NEW MEXICO POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN PREPARED FOR THIS PROJECT.
2. ALL REMAINING DISTURBED AREAS NOT OTHERWISE ALREADY TREATED SHALL BE STABILIZED IN A FINAL MANNER IN CONFORMANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. A NOTICE OF TERMINATION TO CLOSE OUT THE SWPPP'S NOTICE OF INTENT CANNOT BE FILED WITH NEW MEXICO ENVIRONMENT DEPARMENT UNTIL THESE FINAL STABILIZATION MEASURES ARE APPLIED.
3. THE CONTRACTOR SHALL REMOVE THE FINE MATERIALS FROM THE BOTTOM OF ANY DETENTION/RETENTION BASIN AND SCARIFY THE BASIN BOTTOM ONCE THE CONSTRUCTION ACTIVITIES ARE COMPLETED IN ORDER TO REMOVE ANY FINE MATERIAL BUILD UP CAUSED BY CONSTRUCTION AND TO RESTORE SOIL PERCOLATION. INSTALL BMP'S AT THE BASIN INLET(S) TO PREVENT THE FINES FROM ENTERING THE BASIN.

SURVEY NOTES

1. BEARINGS ARE IN NEW MEXICO STATE PLANE GRID BEARINGS - CENTRAL ZONE. (NAD 83)
2. VERTICAL DATUM IS BASED ON THE ALBUQUERQUE CONTROL SURVEY MONUMENT "NM-448-C1" HAVING A PUBLISHED ELEVATION OF 5076.696' (NAVD 1988).
3. THE SURVEY FOR THIS PROJECT WAS PERFORMED BY:  
SURV TEK, INC.  
9384 VALLEY VIEW DRIVE, N.W.  
ALBUQUERQUE, NEW MEXICO 87114  
ATTN: MR. RUSS P. HUGG, NM PLS #9750  
PH: (505) 987-3366
4. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED LAND SURVEYOR TO PROVIDE THE CONSTRUCTION LAYOUT. THE SURVEYOR SHALL VERIFY THE KNOWN BENCHMARK AND COMPARE THE SITE CONDITIONS WITH THE PLANS AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OBSERVED SHOULD ANY BENCHMARK, GRADE OR DESIGN INDICATED ON THE PLANS BE SUSPECT. THE OWNER SHALL BE NOTIFIED OF SAID BENCHMARK, GRADE OR DESIGN PROBLEM AT LEAST TWENTY-FOUR (24) HOURS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN IN THE AFFECTED AREA.
5. UPON COMPLETION OF THE WORK, THE CONTRACTOR AND HIS SURVEYOR SHALL CERTIFY IN WRITING TO THE OWNER THAT THE PROJECT CIVIL ENGINEERING IMPROVEMENTS WERE STAKED AND BUILT IN SUBSTANTIAL CONFORMANCE TO THE LINES AND GRADES SHOWN. UNLESS NOTED OTHERWISE, SUBSTANTIAL CONFORMANCE SHALL MEAN THAT BUILDING SITES HAVE BEEN CONSTRUCTED TO WITHIN 0.10± FEET OF FINISH BUILDING PAD ELEVATIONS AS DESIGNED BY THE ENGINEER. PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10± FEET OF FINISH GRADE AS DESIGNED BY THE ENGINEER. SITE FEATURES SHALL BE WITHIN 0.25 FEET OF SPECIFIED POSITION.



For As-Built Only:



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ENGINEER  
**CYPRESS**  
CIVIL DEVELOPMENT  
STRENGTH + SUSTAINABILITY  
2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com



PROJECT  
**GENERATIONS**  
**AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

100% CONSTRUCTION DOCUMENTS

REVISIONS	
04/06/2018	ADDENDUM 002:
2	ALL SHEETS REISSUED
1	

DRAWN BY	JR
REVIEWED BY	KMH
DATE	04/06/2018
PROJECT NO	14-0701

DRAWING NAME  
**GRADING AND DRAINAGE**  
**NOTES**

SHEET NO  
**C003**



**DEKKER  
PERICH  
SABATINI**

7601 JEFFERSON NE, SUITE 100  
ALBUQUERQUE, NM 87109

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ENGINEER

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CIVIL DEVELOPMENT**

2030 east speedway boulevard  
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ENGINEER



PROJECT

**GENERATIONS  
AT WEST MESA**  
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100% CONSTRUCTION  
DOCUMENTS

REVISIONS

04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED

DRAWN BY

JR

REVIEWED BY

KMH

DATE

04/06/2018

PROJECT NO

14-0701

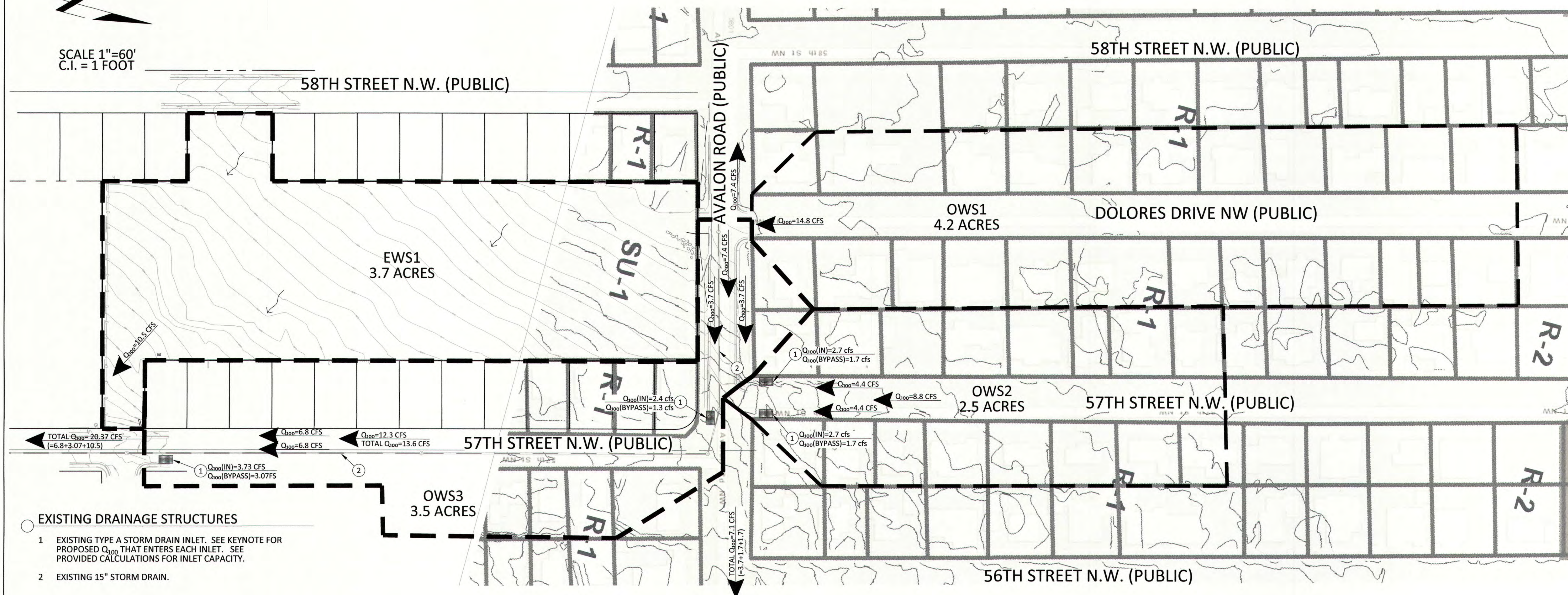
DRAWING NAME

EXISTING WATERSHED  
MAP

SHEET NO

C004

SCALE 1"=60'  
C.I. = 1 FOOT



#### EXISTING DRAINAGE STRUCTURES

- EXISTING TYPE A STORM DRAIN INLET. SEE KEYNOTE FOR PROPOSED  $Q_{100}$  THAT ENTERS EACH INLET. SEE PROVIDED CALCULATIONS FOR INLET CAPACITY.
- EXISTING 15" STORM DRAIN.

CALCULATIONS: 2124 Generations at West Mesa : February 15, 2018

Based on Drainage Design Criteria for the City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan, 1993

ON-SITE	
AREA OF SITE:	159018.8287 ft <sup>2</sup> = 3.7 AC

HISTORIC FLOWS:

DEVELOPED FLOW:

EXCESS PRECIP:

Treatment SF	%	Treatment SF	%	Precip. Zone 1
Area A = 0	0%	Area A = 0	0%	$E_A = 0.44$
Area B = 0	0%	Area B = 0	0%	$E_B = 0.67$
Area C = 159018.8287	100%	Area C = 61548	39%	$E_C = 0.99$
Area D = 0	0%	Area D = 97471	61%	$E_D = 1.97$
Total Area = 159018.8287	100%	Total Area = 159018.83	100%	

On-site Weighted Excess Precipitation (100-year, 6-Hour Storm):

$$\text{Weighted } E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$$

$$A_A + A_B + A_C + A_D$$

Historic $E = 0.99$ in	Developed $E = 1.59$ in
------------------------	-------------------------

On-site Volume of Runoff:  $V_{360} = E^*A/12$

Historic $V_{360} = 13119$ CF	Developed $V_{360} = 21070$ CF
-------------------------------	--------------------------------

On-site Peak Discharge Rate:  $Q_p = Q_{pA} + Q_{pB} + Q_{pC} + Q_{pD} / 43,560$

For Precipitation Zone 1

$Q_{pA} = 1.29$	$Q_{pC} = 3$
$Q_{pB} = 2.03$	$Q_{pD} = 4$
Historic $Q_p = 10.5$ CFS	Developed $Q_p = 13.83$ CFS

CALCULATIONS: 2124 Generations at West Mesa : February 15, 2018

Based on Drainage Design Criteria for the City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan, 1993

OFF-SITE	
AREA OF OFFSITE WATERSHED #1 (OWS1):	4.2 AC
AREA OF OFFSITE WATERSHED #2 (OWS2):	2.5 AC
AREA OF OFFSITE WATERSHED #3 (OWS3):	3.5 AC

DEVELOPED FLOWS (Per Table A-5. Percent Treatment D (Impervious)):

Land Use	Percent	N =
*Single Family Residential	$7 * \sqrt{(N * N) + 5N}$	7
N=units/acres, N6		Percent D = 64

Land Treatment

Area	%
Area A	0%
Area B	36%
Area C	0%
Area D*	64%

On-site Peak Discharge Rate:  $Q_p = Q_{pA} + Q_{pB} + Q_{pC} + Q_{pD} / 43,560$

For Precipitation Zone 1

$Q_{pA} = 1.29$	$Q_{pC} = 2.87$
$Q_{pB} = 2.03$	$Q_{pD} = 4.37$
OWS1 Developed $Q_p = 14.8$ CFS	
OWS2 Developed $Q_p = 8.8$ CFS	
OWS3 Developed $Q_p = 12.3$ CFS	

#### EXISTING CONDITIONS

THE PROJECT AREA IS APPROXIMATELY 3.7 ACRES AND IS UNDEVELOPED. BASINS ADJACENT TO THE PROJECT AREA ARE FULLY DEVELOPED AND DO NOT FLOW THROUGH THE PROPOSED DEVELOPMENT. RUNOFF IS CONVEYED AS SHEET FLOW TO THE SOUTHEAST PROPERTY BOUNDARY AND DISCHARGED INTO THE 57TH STREET RIGHT OF WAY. ONCE OFFSITE, RUNOFF IS CONVEYED SOUTH APPROXIMATELY A QUARTER MILE WHERE IT ENTERS THE PUBLIC STORM DRAIN SYSTEM IN CENTRAL AVE.

FOR AS-BUILT ONLY



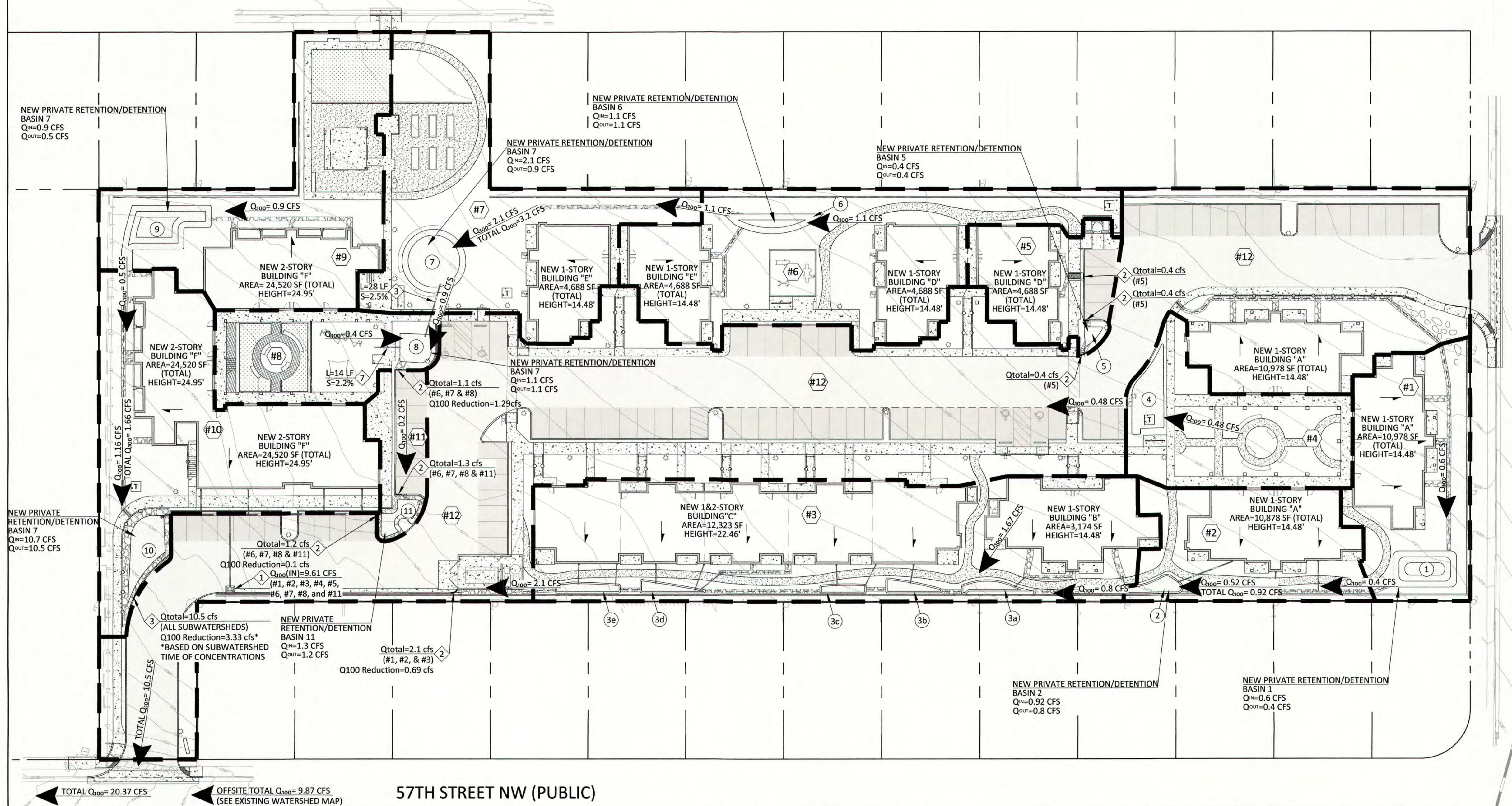
FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2



For As-Built Only:


 SCALE 1"=30'  
C.I. = 1 FOOT

58TH STREET NW (PUBLIC)



AVALON RD (PUBLIC)

**DEPRESSED WATER  
HARVESTING/BASIN AREA**

- 1 TOTAL VOLUME = 660 CF  
TOTAL PONDING DEPTH = 3'  
MAX 3:1 SIDE SLOPES
- 2 TOTAL VOLUME = 142 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 3a TOTAL VOLUME = 88 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 3b TOTAL VOLUME = 95 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 3c TOTAL VOLUME = 69 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 3d TOTAL VOLUME = 89 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 3e TOTAL VOLUME = 109 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 4 TOTAL VOLUME = 330 CF  
TOTAL PONDING DEPTH = 6"  
MAX 3:1 SIDE SLOPES
- 5 TOTAL VOLUME = 122 CF  
TOTAL PONDING DEPTH = 1.0'  
MAX 3:1 SIDE SLOPES
- 6 TOTAL VOLUME = 213 CF  
TOTAL PONDING DEPTH = 1.0'
- 7 TOTAL VOLUME = 688 CF  
TOTAL PONDING DEPTH = 1.0'  
MAX 3:1 SIDE SLOPES
- 8 TOTAL VOLUME = 531 CF  
TOTAL PONDING DEPTH = 1.5'  
MAX 3:1 SIDE SLOPES
- 9 TOTAL VOLUME = 957 CF  
TOTAL PONDING DEPTH = 2'  
MAX 3:1 SIDE SLOPES
- 10 TOTAL VOLUME = 1,177 CF  
TOTAL PONDING DEPTH = 1.89'  
1:1 MAX GROUTED RIP RAP SIDE SLOPES
- 11 TOTAL VOLUME = 678 CF  
TOTAL PONDING DEPTH = 2.5'  
1:1 MAX GROUTED RIP RAP SIDE SLOPES

**KEYNOTES**

- 1 NEW SINGLE "D" CATCH BASIN WITH CITY OF ALBUQUERQUE GRATE. SEE KEYNOTE FOR. SEE PROVIDED CALCULATIONS FOR INLET CAPACITY.
- 2 NEW 3' WIDE CURB OPENING. SEE KEYNOTE FOR PROPOSED  $Q_{100}$  CONVEYED THROUGH CURB OPENING. SEE PROVIDED WEIR CALCULATIONS FOR CURB CUT CAPACITY.
- 3 NEW 10' WIDE CURB OPENING. SEE KEYNOTE FOR PROPOSED  $Q_{100}$  CONVEYED THROUGH CURB OPENING. SEE PROVIDED WEIR CALCULATIONS FOR CURB CUT CAPACITY.

**LEGEND**

- $Q_{100}$  = CONCENTRATION POINT
- WATERSHED BOUNDARY
- PROJECT AREA
- FLOW DIRECTION
- #1 SUB WATERSHED DESIGNATOR

**DRAINAGE CONCEPT**

PROPERTY: THE SITE IS AN UNDEVELOPED INFILL PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP K-11. THE SITE IS BOUND TO THE SOUTH BY FIRE STATION NO. 7, TO THE EAST BY FULLY DEVELOPED RESIDENTIAL PROPERTIES AND ACCESS TO 57TH STREET NW, TO THE WEST BY FULLY DEVELOPED RESIDENTIAL PROPERTIES AND ACCESS TO 58TH STREET NW, AND TO THE NORTH BY AVALON ROAD SW.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE AN AFFORDABLE HOUSING COMMUNITY FOR SENIORS AND GRANDFAMILIES ALONG WITH A COMMUNITY CENTER, ASSOCIATED ASPHALT PAVED DRIVES, PARKING, PLAYGROUNDS, PEDESTRIAN WALKS AND LANDSCAPING.

OFFSITE FLOW: NO OFF-SITE FLOW IMPACTS THIS PROPERTY.

RETAINING WALLS: ON-SITE RETAINING WALLS AND RETAINING/EXTENDED STEM WALLS WILL BE REQUIRED THROUGHOUT THE DEVELOPMENT TO ACHIEVE THE NECESSARY GRADE TRANSITIONS. NO PERIMETER PROPERTY LINE RETAINING WALLS WILL EXCEED 4' RETAINING AT THE GREATEST GRADE CHANGE. RETAINING WALL DESIGN (WALL LOCATIONS, TOP OF WALL / BOTTOM OF WALL ELEVATIONS) ARE PROVIDED ON SHEETS C011 THRU C013 OF THIS PLAN. RETAINING WALL STRUCTURAL DETAILS ARE PROVIDED WITHIN THE BUILDING PLAN PERMIT SET.

SITE DISCHARGE: FOR THE PROPOSED RESIDENTIAL DEVELOPMENT, DEPRESSED LANDSCAPING AND RETENTION PONDS SIZED TO RETAIN THE FIRST FLUSH VOLUME ARE PROVIDED THROUGHOUT THE PROPERTY. LIMITED ON-SITE UNDERGROUND STORM DRAIN WILL BE PROVIDED TO DIRECT INDIVIDUAL BUILDING ROOF DISCHARGE TO ON-SITE POND LOCATIONS (WHERE CLEAR SURFACE FLOWPATHS ARE NOT AVAILABLE). THE SITE WILL THEN DISCHARGE TO 57TH STREET (SEE SUPPLEMENTAL CALCULATIONS FOR STREET CAPACITY ANALYSIS) TO ENTER THE EXISTING PUBLIC STORM DRAIN SYSTEM.

**FIRST FLUSH MEASURES**

STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' (DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM).

THE PONDING VOLUME REQUIRED IS 0.34" \* TYPE 'D' AREA:  
0.34/12 \* 3.65 AC \* 61.3% LAND TREATMENT 'D' \* 43,560 = 2,762 CF

THERE ARE 'FIRST FLUSH' RETENTION BASIN AREAS THROUGHOUT THE SITE (HATCHED PER LEGEND). STORMWATER FROM THE IMPERVIOUS AREAS SHALL BE DIRECTED TO THESE BASINS VIA CURB OPENINGS AND ON-SITE STORM DRAINS. FLOW IN EXCESS OF FIRST FLUSH POND CAPACITY WILL OVERFLOW TO ADJACENT PAVEMENT TO DISCHARGE TO 57TH STREET.

THE 'FIRST FLUSH' BASIN VOLUMES WERE ANALYZED AND SIZED AS PART OF THIS DEVELOPMENT. SEE TABLE PROVIDED AND SUPPLEMENTAL SUBWATERSHED MAP FOR MORE INFORMATION.

THE CUMULATIVE AREA SHOWN HATCHED FOR FIRST FLUSH PONDING IS APPROXIMATELY 5,949 CF

**FIRST FLUSH MEASURES (cont.)**

Subwatershed	Size (ft <sup>2</sup> )	REQUIRED FIRST FLUSH			
		ImperVIOUS Area (ft <sup>2</sup> )	Percent ImperVIOUS	Required Volume (CF)	Provided Volume (CF)
#1	7,427	3,078	41%	87	660
#2	6,331	3,098	49%	88	142
#3	19,228	11,618	60%	329	451
#4	6,385	1,793	28%	51	330
#5	4,098	3,646	89%	103	122
#6	13,369	6,266	47%	178	213
#7	13,267	3,212	24%	91	688
#8	4,851	2,071	43%	59	531
#9	11,526	4,184	36%	119	957
#10	13,334	8,183	61%	232	1,177
#11	2,148	1,697	79%	48	678
#12	57,056	48,639	85%	1,378	*
<b>TOTAL:</b>	<b>101,963</b>	<b>48,844</b>		<b>2,762</b>	<b>5,949</b>

\*CATCH BASIN

**SUBWATERSHED  $Q_p$** 

Subwatershed	Size (ft <sup>2</sup> )	SUBWATERSHED DEVELOPED $Q_p$			
		ImperVIOUS Area (ft <sup>2</sup> )	Percent ImperVIOUS (%)	Pervious (%)	CFS
#1	7,427	3,078	41%	59%	0.60
#2	6,331	3,098	49%	51%	0.52
#3	19,228	11,618	60%	40%	1.67
#4	6,385	1,793	28%	72%	0.48
#5	4,098	3,646	89%	11%	0.40
#6	13,369	6,266	47%	53%	1.10
#7	13,267	3,212	24%	76%	0.98
#8	4,851	2,071	43%	57%	0.39
#9	11,526	4,184	36%	64%	0.90
#10	13,334	8,183	61%	39%	1.16
#11	2,148	1,697	79%	21%	0.20
#12	57,056	48,639	85%	15%	5.43
<b>TOTAL</b>	<b>159,019</b>				<b>13.83</b>

 CALCULATIONS: 2124 Generations at West Mesa: February 15, 2018  
Based on Drainage Design Criteria for the City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan, 1993

 AREA OF SITE: 159018.8287 ft<sup>2</sup> = 3.7 AC

HISTORIC FLOWS:		DEVELOPED FLOW:		EXCESS PRECIP:	
Treatment SF	%	Treatment SF	%	Precip. Zone 1	
Area A = 0	0%	Area A = 0	0%	$E_a$ =	0.44
Area B = 0	0%	Area B = 0	0%	$E_b$ =	0.67
Area C = 159018.8287	100%	Area C = 61548	39%	$E_c$ =	0.99
Area D = 0	0%	Area D = 97471	61%	$E_d$ =	1.97
Total Area = 159018.8287	100%	Total Area = 159018.83	100%		

On-site Weighted Excess Precipitation (100-year, 6-Hour Storm):

Weighted  $E = \frac{E_a A_a + E_b A_b + E_c A_c + E_d A_d}{A_a + A_b + A_c + A_d}$ Historic  $E = 0.99$  inOn-site Volume of Runoff:  $V_{360} = E^*A/12$ Historic  $V_{360} = 13119$  CFOn-site Peak Discharge Rate:  $Q_p = Q_{100}A_a + Q_{100}A_b + Q_{100}A_c + Q_{100}A_d/43,560$ 

For Precipitation Zone 1

 $Q_{100} = 1.29$  $Q_{100} = 2.03$ Historic  $Q_p = 10.5$  CFSDeveloped  $Q_p = 13.83$  CFSReduction  $Q_p = (3.33$  CFS)
 FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2



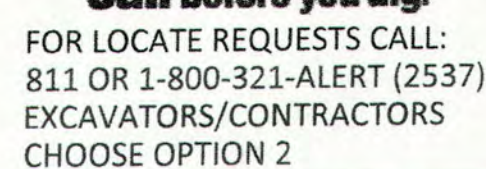
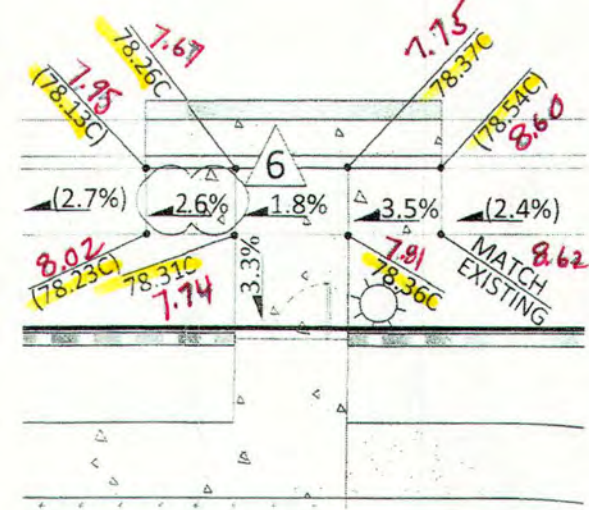
85.761.9700 / DPSDESIGN.ORG

**CYPRESS**  
CIVIL DEVELOPMENT  
resilient + sustainability  
30 east speedway boulevard  
te #110  
son, arizona 85719  
520.499.2456  
kmhall@cypresscivil.com

**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

06/11/2018 ASI-002

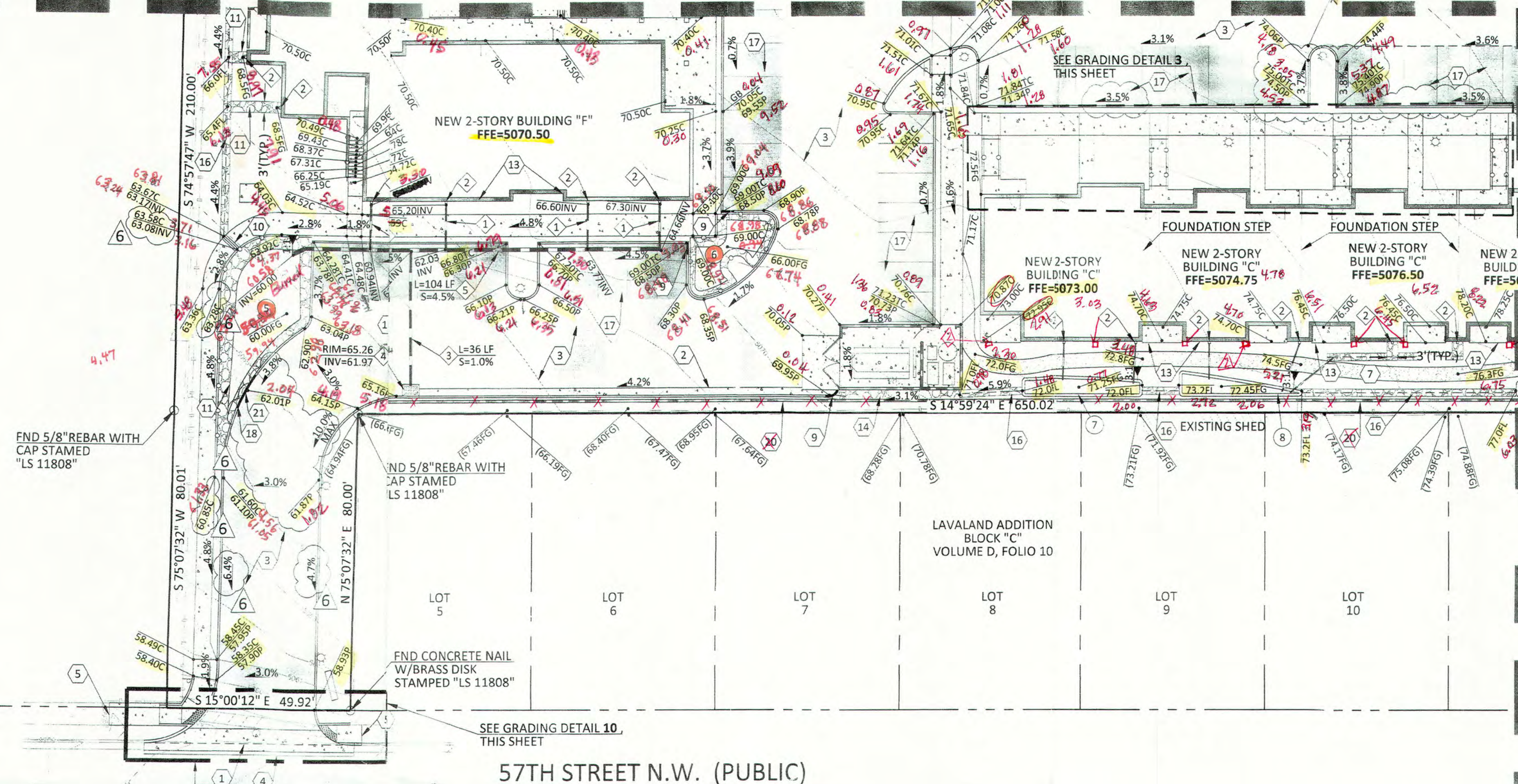
C006





T.S 3.28

MATCH LINE - SEE SHEET C006



#### KEYNOTES

- 1 NEW CONCRETE VALLEY GUTTER PER COA STD DWG 2420.
- 2 NEW CURB & GUTTER PER COA STD. DRAWING 2415A. SEE DETAIL A, SHEET C010.
- 3 NEW 3" AC PAVEMENT OVER 4" ABC. COMPACT ABC TO 100%. SEE DETAIL B, SHEET C010.
- 4 SAWCUT A MINIMUM OF 12" INTO THE EXISTING PAVEMENT. REMOVE EXISTING ASPHALT, TACK AND JOIN.
- 5 CONNECT TO EXISTING SIDEWALK.
- 6 NEW STABILIZED CRUSHER PATH. SEE DETAIL C, SHEET C010.
- 7 NEW ENTRANCE WITH ADA ACCESSIBLE PATH AND RAMPS TO BE CONSTRUCTED PER SEPARATE PLAN AND BY PUBLIC WORK ORDER. GRADES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY.
- 8 NEW 3" CURB OPENING PER DETAIL D, SHEET C010.
- 9 NEW 6" SIDEWALK SCUPPER. SEE DETAIL E, SHEET C010.
- 10 NEW GROUTED RIP RAP. SEE RIP RAP NOTES, SHEET C003.
- 11 BUILDING STEM WALL REQUIRED PER BUILDING PLANS.
- 12 NEW GROUTED 8" TO 12" ANGULAR STONE.
- 13 NEW 2' GROUTED RIP RAP SWALE. SEE DETAIL G, SHEET C010.
- 14 NEW 10' CURB OPENING PER DETAIL D, SHEET C010.
- 15 NEW 3" MAX RETAINING WALL. SEE SITE PLANS FOR MORE DETAIL.
- 16 NEW "TYPE A" BOLLARD. SEE DETAIL J, SHEET C010.

#### DEPRESSED WATER HARVESTING/BASIN AREA

- 1 TOTAL VOLUME = 1.177 CF  
TOTAL PONDING DEPTH = 1.89"  
1:1 MAX GROUTED RIP RAP SIDE SLOPES
- 2 TOTAL VOLUME = 678 CF  
TOTAL PONDING DEPTH = 2.5"  
1:1 MAX GROUTED RIP RAP SIDE SLOPES
- 3 TOTAL VOLUME = 109 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- 4 TOTAL VOLUME = 69 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES

#### STORM DRAIN KEYNOTES

- 1 NEW 6" HDPE STORM DRAIN PIPE AT 1% MIN. SLOPE. CONNECT TO DOWNSPOUT AT BUILDING.
- 2 NEW ROOF DRAIN. SEE BUILDING PLAN FOR DETAIL.
- 3 NEW 6" HDPE STORM DRAIN PIPE. SEE KEYNOTE FOR LENGTH AND SLOPE.
- 4 NEW SINGLE "D" CATCH BASIN PER COA DWG. 2206.
- 5 NEW 8" HDPE STORM DRAIN PIPE. SEE KEYNOTE FOR LENGTH AND SLOPE.
- 6 NEW 4" PVC CULVERT PIPE. SEE KEYNOTE FOR LENGTH AND SLOPE.
- 7 NEW 4" PVC CULVERT PIPE AT 1% MIN. SLOPE. SEE DETAIL THIS SHEET. CONNECT TO DOWNSPOUT AT BUILDING.

GRADED AS-BUILT  
OCT. 2019

WAYJOHN SURVEYING, INC.  
1609 2ND STREET NW  
ALBUQUERQUE, NM 87102

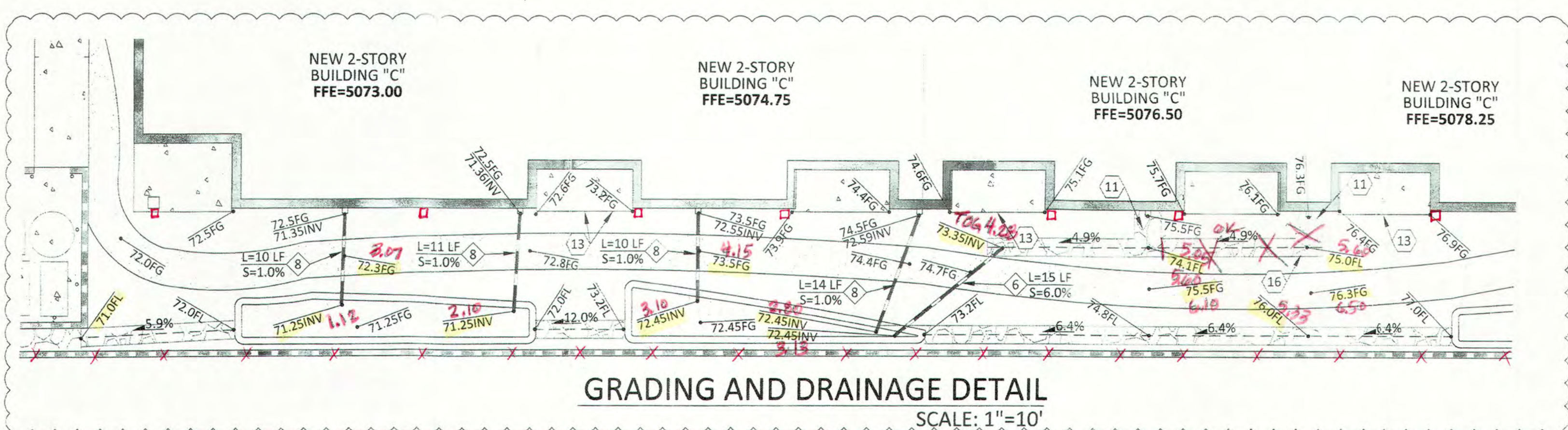


10/28/2019

SCALE: 1"=20'  
C.I.=1 FOOT

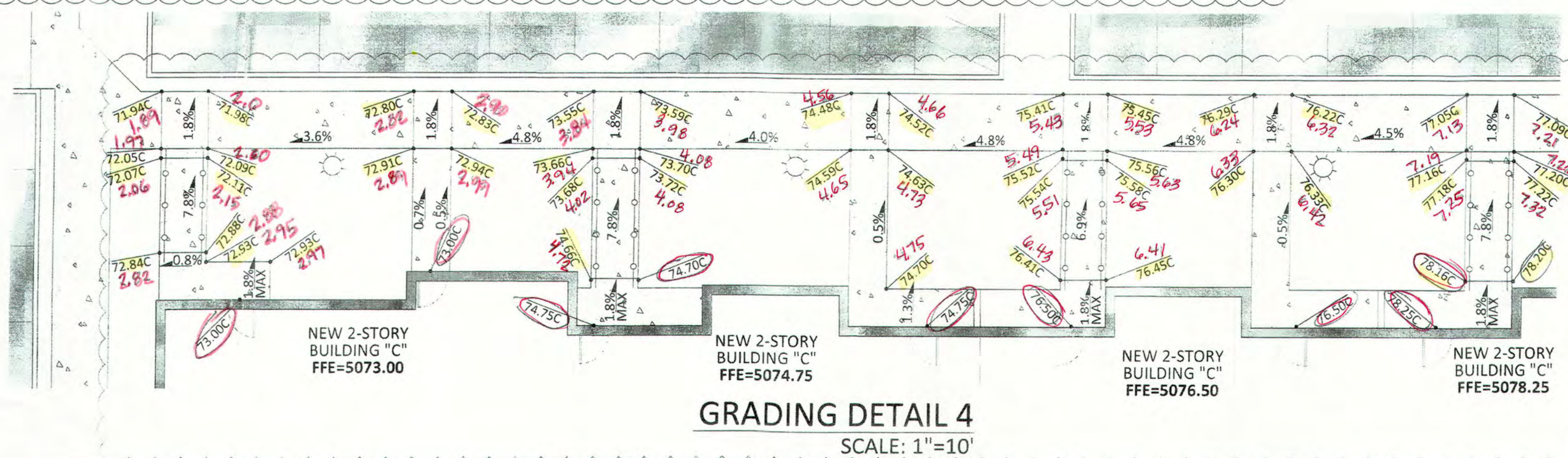
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SCALE: 1"=10'

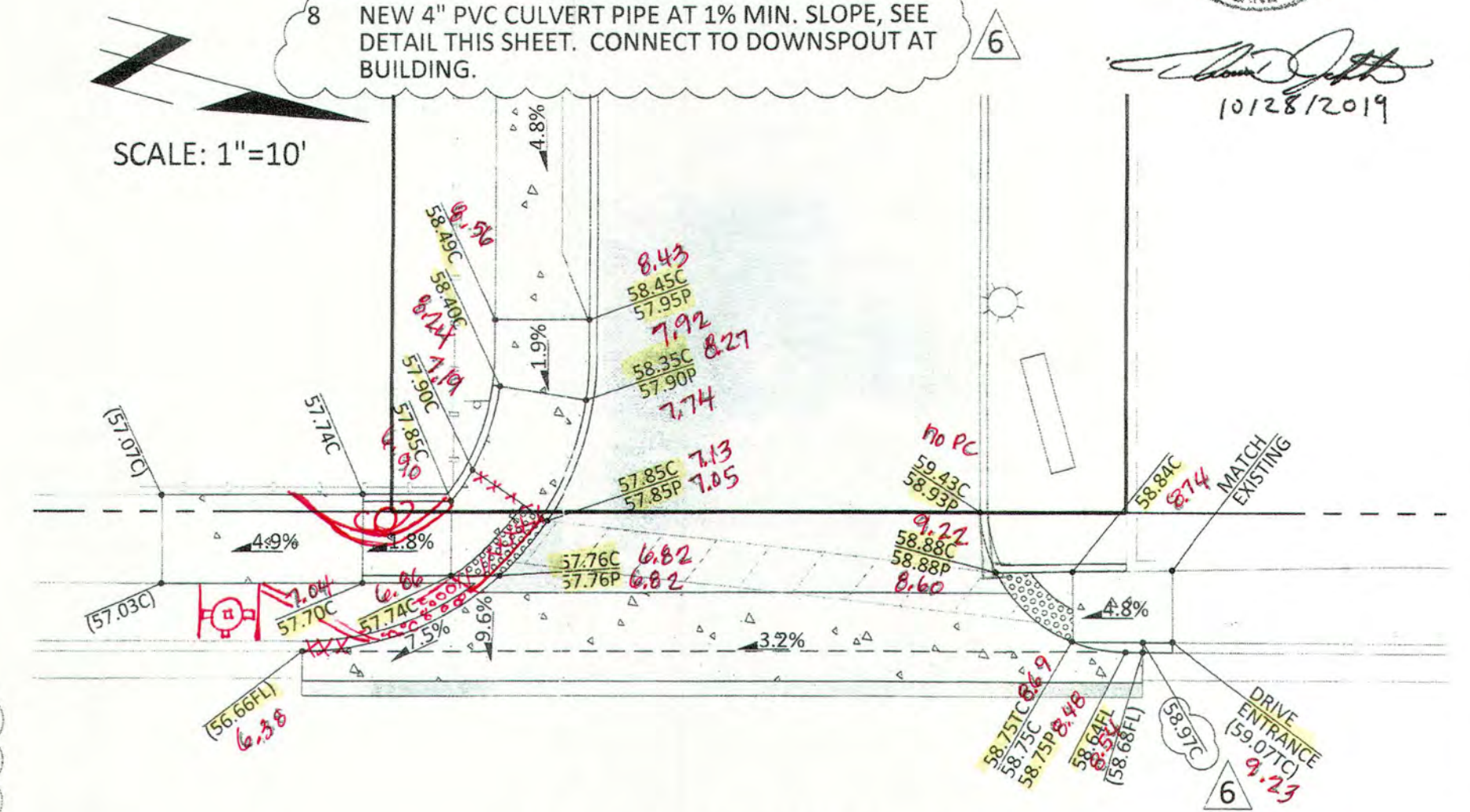


#### GRADING DETAIL 4

SCALE: 1"=10'



SCALE: 1"=10'



#### GRADING DETAIL 10

SCALE: 1"=10'

POND RE-CHECK  
11/15/19

WAYJOHN SURVEYING, INC.  
1609 2ND STREET NW  
ALBUQUERQUE, NM 87102



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ARCHITECTURE / DESIGN / INSPIRATION

DEKKER  
PERICH  
SABATINI

7601 JEFFERSON NE, SUITE 100  
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ENGINEER

CYPRESS  
CIVIL DEVELOPMENT  
2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER



PROJECT

GENERATIONS  
AT WEST MESA  
5710 Avalon Road, NW  
Albuquerque, NM 87105

ISSUED FOR  
CONSTRUCTION

REVISIONS

- |   |            |         |
|---|------------|---------|
| 6 | 08/11/2018 | ASI-002 |
| 5 |            |         |
| 4 |            |         |
| 3 |            |         |
| 2 |            |         |
| 1 |            |         |

DRAWN BY	JMR
REVIEWED BY	KMH
DATE	08/11/2018
PROJECT NO	14-0701

DRAWING NAME

GRADING AND DRAINAGE  
GRADING +  
DRAINAGE (SE)

SHEET NO

Back  
Done  
C007



**DEKKER  
PERICH  
SABATINI**

7601 JEFFERSON NE, SUITE 100  
ALBUQUERQUE, NM 87109  
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ENGINEER  
**CYPRESS  
CIVIL DEVELOPMENT**  
2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com  
ENGINEER

KEVIN M. HALL  
NEW MEXICO  
23149  
06/11/2018  
PROFESSIONAL ENGINEER

PROJECT

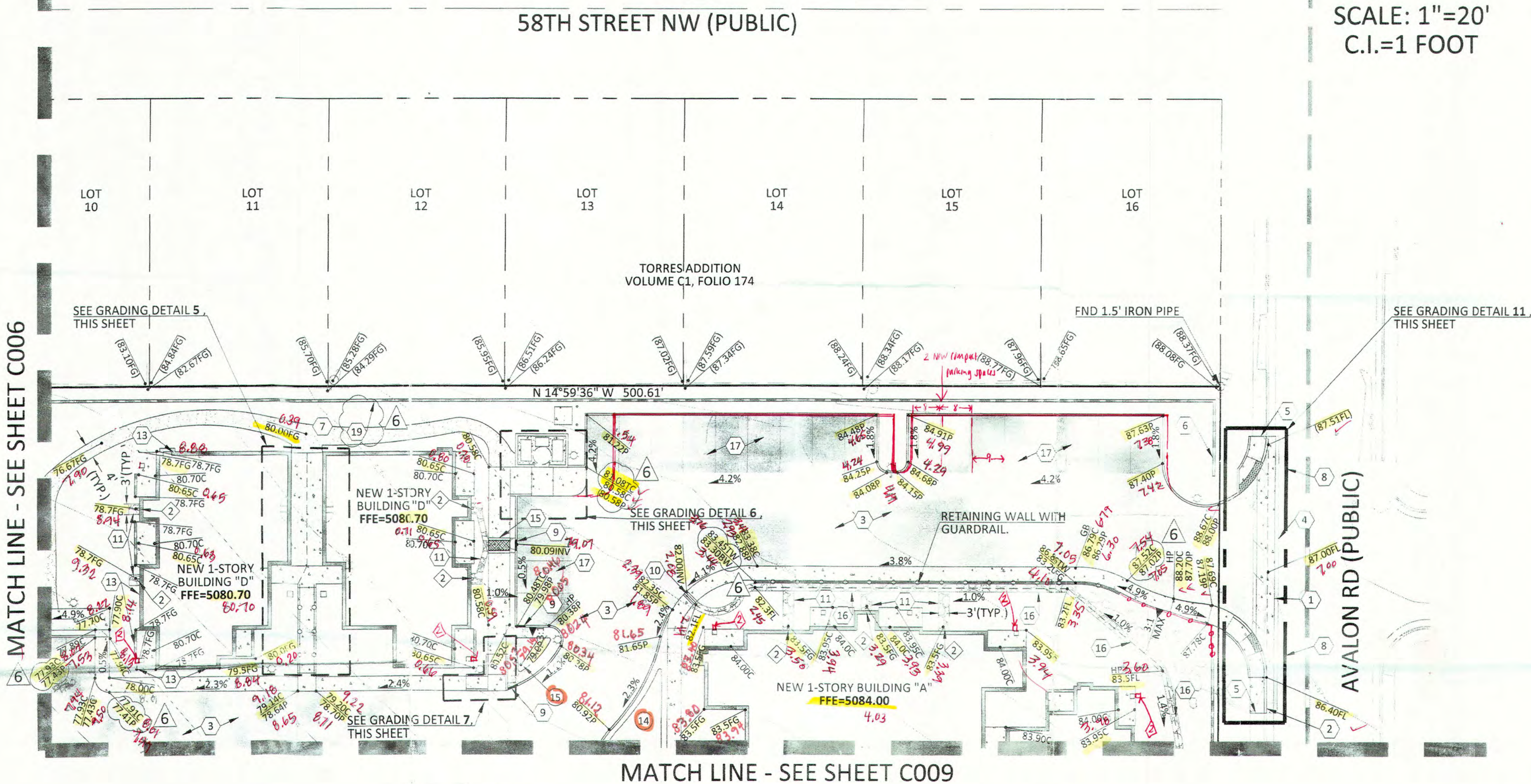
**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

ISSUED FOR  
CONSTRUCTION

REVISIONS  
6/06/11/2018 ASI-002  
DRAWN BY JMR  
REVIEWED BY KMH  
DATE 06/11/2018  
PROJECT NO 14-0701

DRAWING NAME  
GRADING AND DRAINAGE  
GRADING +  
DRAINAGE - (NW)

SHEET NO  
Done 0050 0050 CE  
**C008**



KEYNOTES

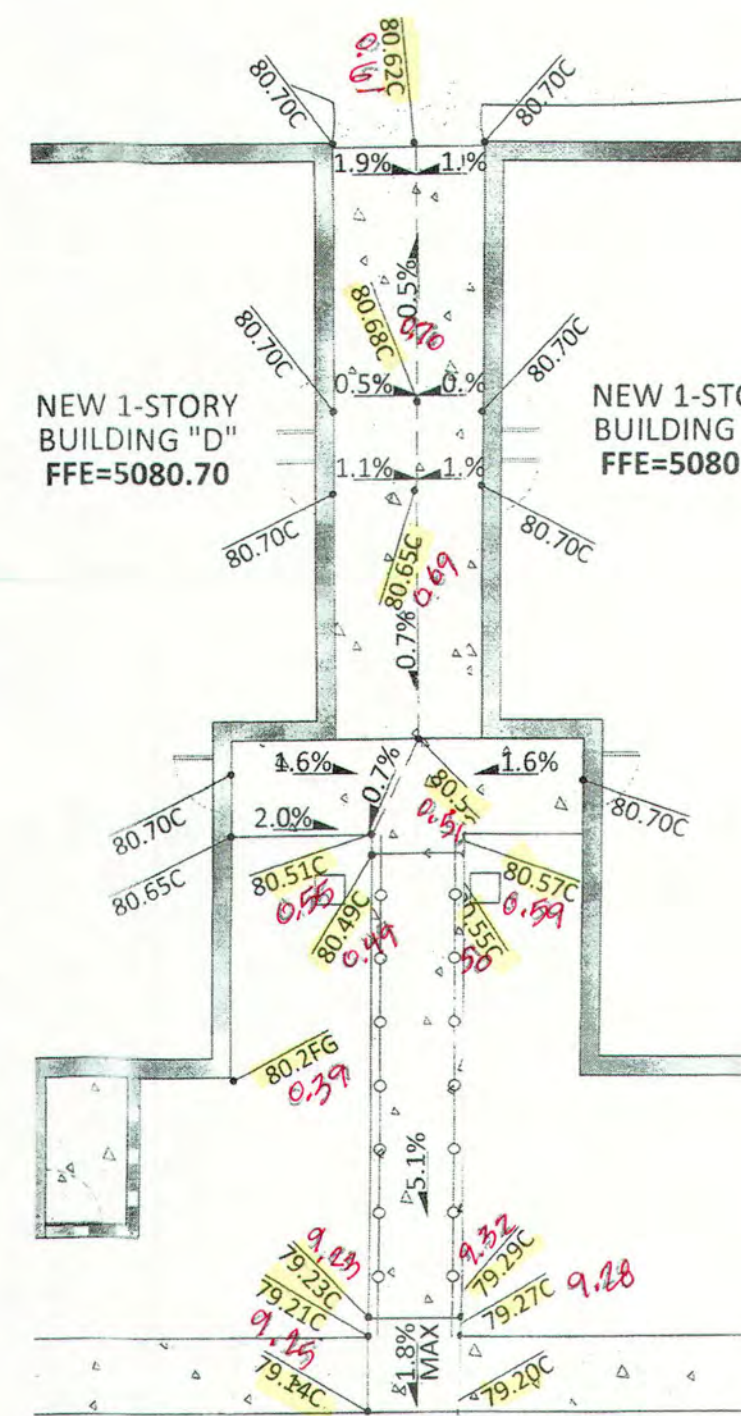
- 1 NEW CONCRETE VALLEY GUTTER PER COA STD DWG 2420.
- 2 NEW CURB & GUTTER PER COA STD. DRAWING 2415A. SEE DETAIL A, SHEET C010.
- 3 NEW 3" AC PAVEMENT OVER 4" ABC. COMPACT ABC TO 100%. SEE DETAIL B, SHEET C010.
- 4 SAWCUT A MINIMUM OF 12" INTO THE EXISTING PAVEMENT. REMOVE EXISTING ASPHALT, TACK AND JOIN.
- 5 CONNECT TO EXISTING SIDEWALK.
- 6 NEW 6' MASONRY & PICKET FENCE SITE WALL. SEE BUILDING PLANS FOR DETAILS.
- 7 NEW STABILIZED CRUSHER PATH. SEE DETAIL C, SHEET C010.
- 8 NEW ENTRANCE WITH ADA ACCESSIBLE PATH AND RAMPS TO BE CONSTRUCTED BY SEPARATE PLAN AND PUBLIC WORK ORDER. GRADES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY.
- 9 NEW 3' CURB OPENING PER DETAIL D, SHEET C010.
- 10 NEW 6" SIDEWALK SCUPPER. SEE DETAIL E, SHEET C010.
- 11 NEW GROUTED RIP RAP. SEE RIP RAP NOTES, SHEET C003.
- 13 BUILDING STEM WALL REQUIRED (PER BUILDING PLANS).
- 15 NEW 2.5' SIDEWALK SCUPPER. SEE DETAIL F, SHEET C010.
- 16 NEW 2' GROUDED RIP RAP SWALE. SEE DETAIL G, SHEET C010.
- 17 NEW 2.5" AC PAVEMENT OVER 4" ABC. COMPACT ABC TO 100%. SEE DETAIL I, SHEET C010.
- 19 NEW 4' MAX RETAINING WALL. SEE SITE PLANS FOR MORE DETAIL.

STORM DRAIN KEYNOTES

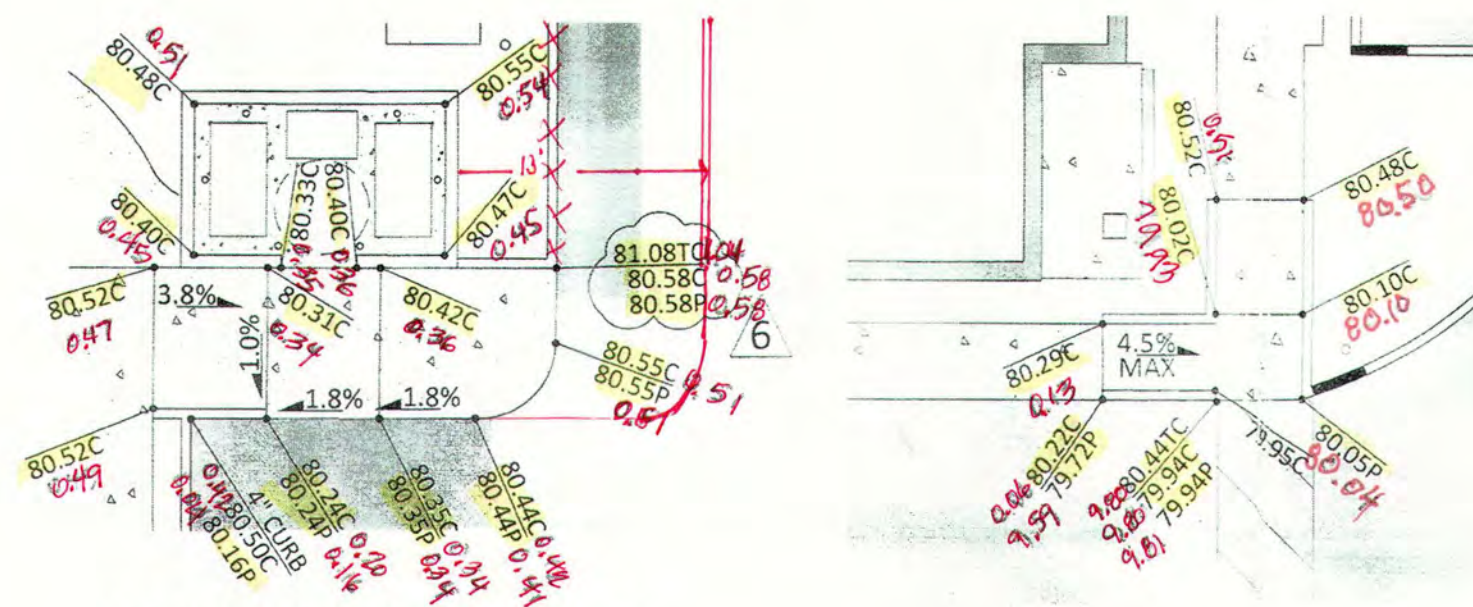
- 2 NEW ROOF DRAIN. SEE BUILDING PLAN FOR DETAIL.

DEPRESSED WATER HARVESTING/BASIN AREA

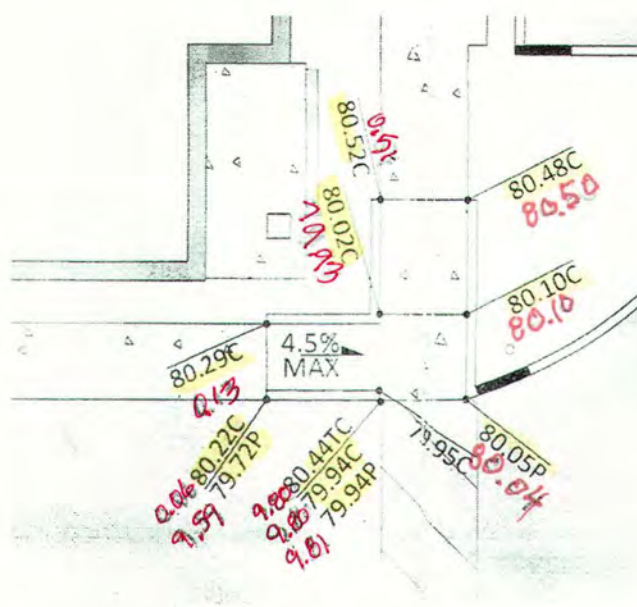
- 14 TOTAL VOLUME = 330 CF  
TOTAL PONDING DEPTH = 6"  
MAX 3:1 SIDE SLOPES
- 15 TOTAL VOLUME = 122 CF  
TOTAL PONDING DEPTH = 1.0'  
MAX 3:1 SIDE SLOPES



GRADING DETAIL 5  
SCALE: 1"=10'



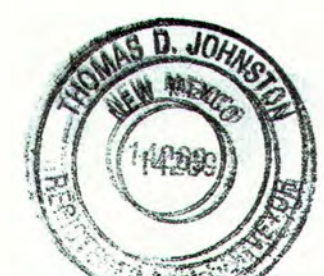
GRADING DETAIL 6  
SCALE: 1"=10'



GRADING DETAIL 7  
SCALE: 1"=10'

WAYJOHN SURVEYING, INC.  
1609 2ND STREET NW  
ALBUQUERQUE, NM 87102

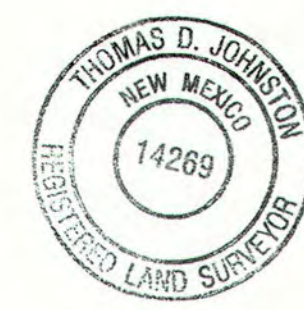
POND RE-CHECK  
11/15/19



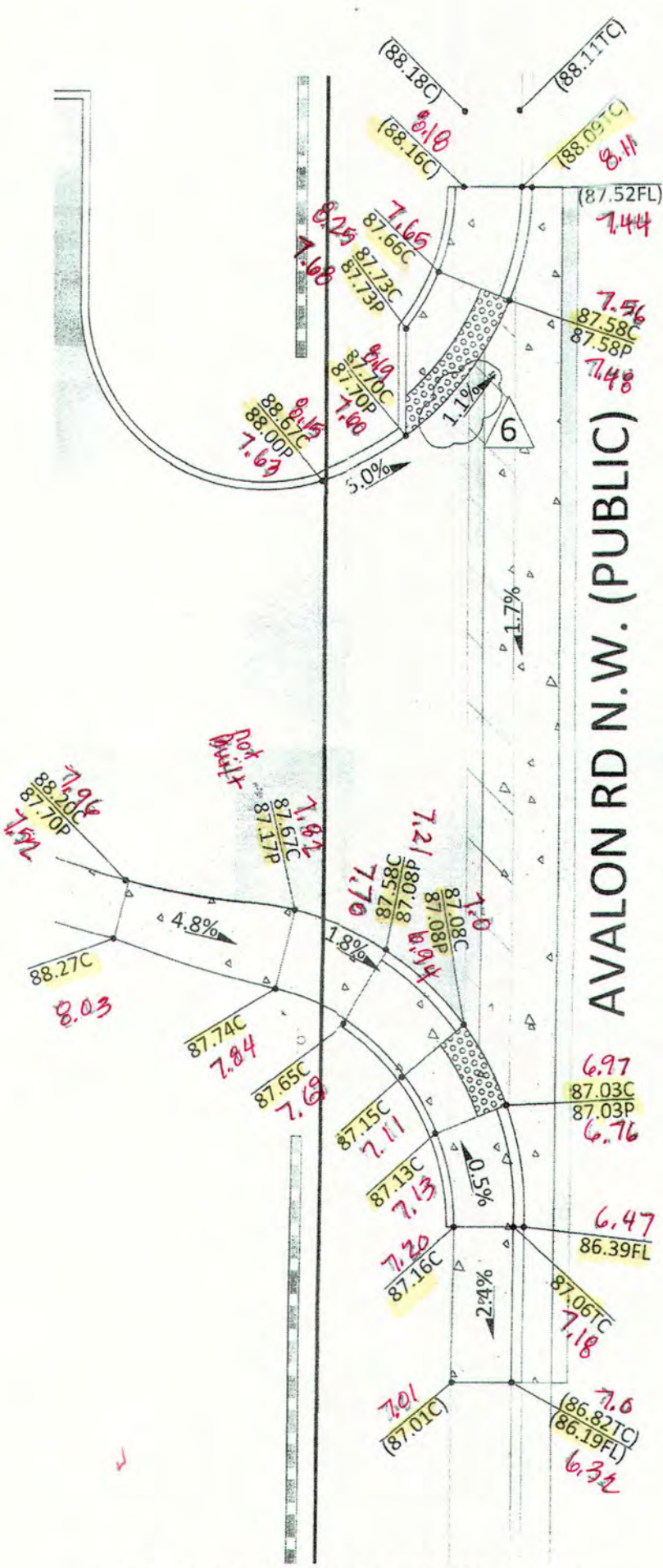
11/15/19

WAYJOHN SURVEYING, INC.  
1609 2ND STREET NW  
ALBUQUERQUE, NM 87102

GRADING AS-BUILT  
OCT. 2019



10/28/19



GRADING DETAIL 11  
SCALE: 1"=10'

For AS-BUILT ONLY:



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SABATINI**

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ALBUQUERQUE, NM 87109  
505.761.9700 / DPSDESIGN.ORG

ENGINEER  
**CYPRESS  
CIVIL DEVELOPMENT**  
2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER  
**KEVIN M. HALL**  
NEW MEXICO  
23149  
11/26/2019  
PROFESSIONAL ENGINEER

PROJECT

**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

ISSUED FOR  
CONSTRUCTION

REVISIONS  
6 08/11/2018 ASI-002

DRAWN BY JMI  
REVIEWED BY KM  
DATE 08/11/2019  
PROJECT NO 14-070

DRAWING NAME

GRADING AND DRAINAGE  
GRADING +  
DRAINAGE - (NE)

SHEET NO

C009

**KEYNOTES**

- NEW 3" AC PAVEMENT OVER 4" ABC. COMPACT ABC TO 100%. SEE DETAIL B, SHEET C010.
- NEW 6" MASONRY & PICKET FENCE SITE WALL. SEE BUILDING PLANS FOR DETAILS.
- NEW STABILIZED CRUSHER PATH. SEE DETAIL C, SHEET C010.
- NEW GROUTED RIP RAP. SEE RIP RAP NOTES, SHEET C003.
- BUILDING STIM WALL REQUIRED (PER BUILDING PLANS).
- NEW 2" GROUTED RIP RAP SWALE. SEE DETAIL G, SHEET C010.
- NEW 2.5" AC PAVEMENT OVER 4" ABC. COMPACT ABC TO 100%. SEE DETAIL I, SHEET C010.

**STORM DRAIN KEYNOTES**

- NEW ROOF DRAIN. SEE BUILDING PLAN FOR DETAIL.
- NEW 4" PVC CULVERT PIPE, SEE DETAIL THIS SHEET. SEE KEYNOTE FOR LENGTH AND SLOPE.
- NEW 4" PVC CULVERT PIPE AT 1% MIN. SLOPE, SEE DETAIL THIS SHEET. CONNECT TO DOWNSPOUT AT BUILDING.

**DEPRESSED WATER HARVESTING/BASIN AREA**

- TOTAL VOLUME = 69 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- TOTAL VOLUME = 95 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- TOTAL VOLUME = 660 CF  
TOTAL PONDING DEPTH = 2"  
MAX 3:1 SIDE SLOPES
- TOTAL VOLUME = 330 CF  
TOTAL PONDING DEPTH = 6"  
MAX 3:1 SIDE SLOPES
- TOTAL VOLUME = 88 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES
- TOTAL VOLUME = 142 CF  
TOTAL PONDING DEPTH = 9"  
MAX 3:1 SIDE SLOPES

For As-Built Only:

SCALE: 1"=20'  
C.I.=1 FOOT

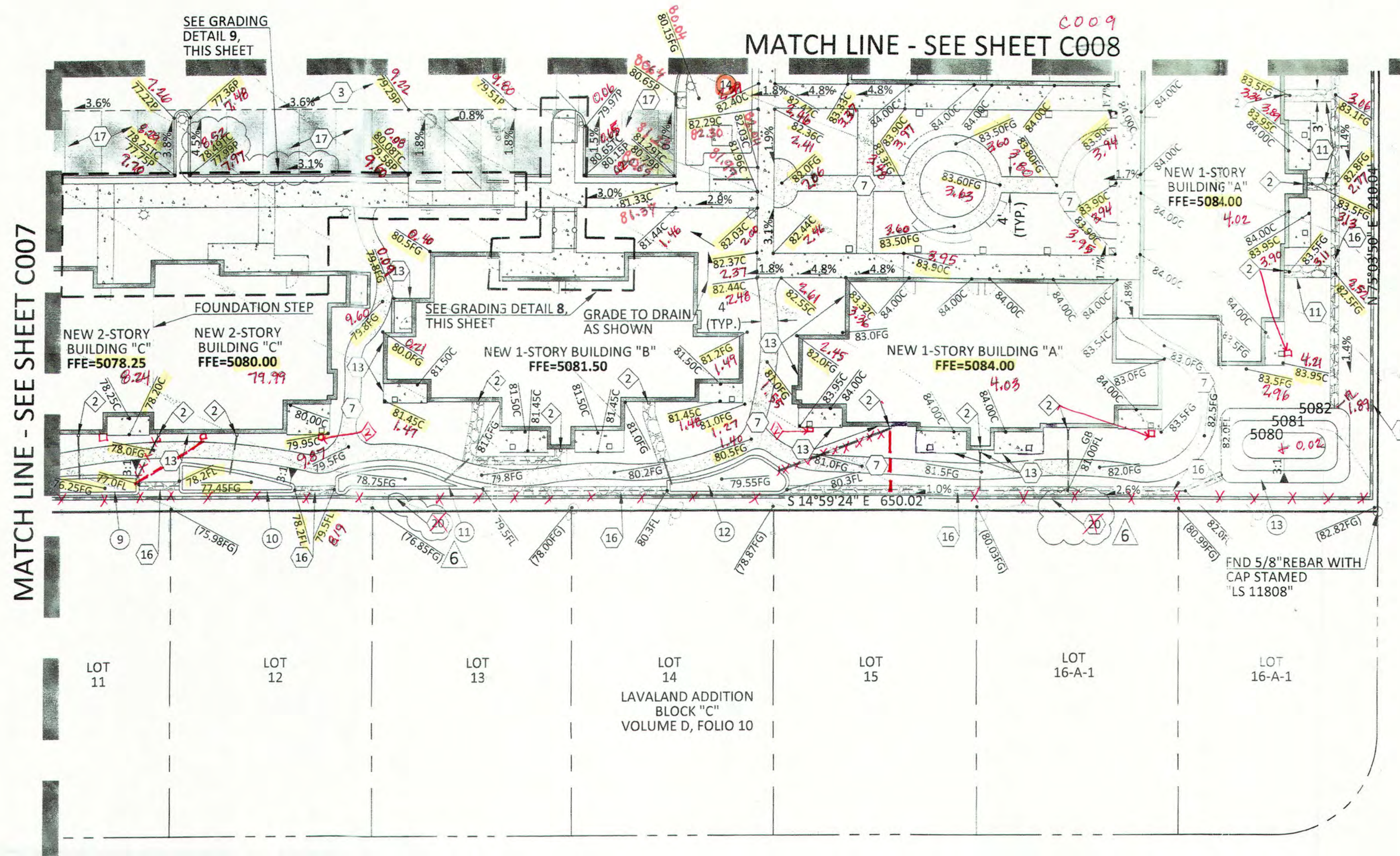
AVALON RD (PUBLIC)

WAYJOHN SURVEYING, INC.  
1609 2ND STREET NW  
ALBUQUERQUE, NM 87102

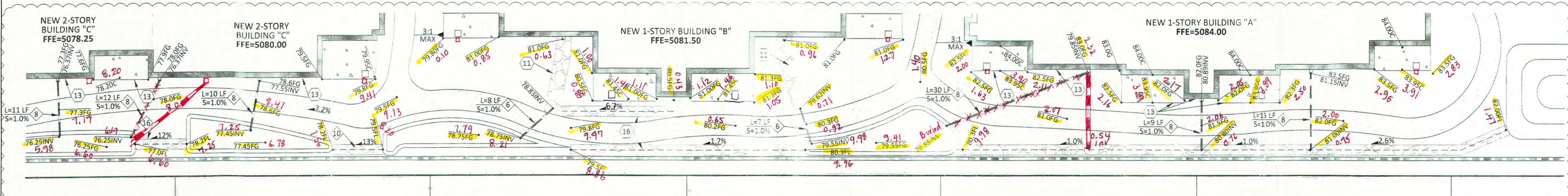
POND RE-CHECK  
11/15/19

THOMAS D. JOHNSTON  
NEW MEXICO  
14269  
REGISTERED LAND SURVEYOR

KEVIN M. HALL  
NEW MEXICO  
23149  
11/26/2019  
PROFESSIONAL ENGINEER



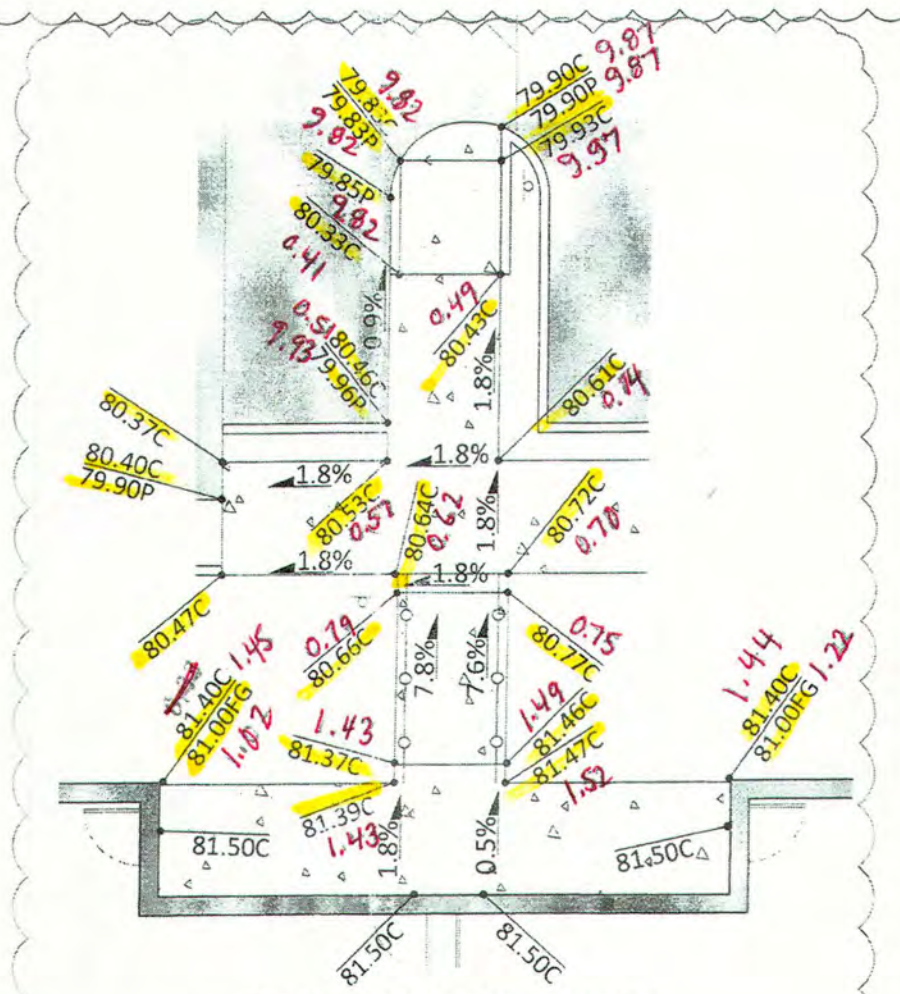
57TH STREET NW (PUBLIC)



**GRADING AND DRAINAGE DETAIL**  
SCALE: 1"=10'



**GRADING DETAIL 9**  
SCALE: 1"=10'



**GRADING DETAIL 8**  
SCALE: 1"=10'

WAYJOHN SURVEYING, INC.  
1609 2ND STREET NW  
ALBUQUERQUE, NM 87102

GRADING As-BUILT  
OCT. 2019

THOMAS D. JOHNSTON  
NEW MEXICO  
14269  
REGISTERED LAND SURVEYOR

10/28/2019

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strength + sustainability  
2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER



PROJECT

**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

ISSUED FOR  
CONSTRUCTION

REVISIONS

△ 06/11/2018 ASI-002

DRAWN BY JMR

REVIEWED BY KMH

DATE 06/11/2018

PROJECT NO 14-0701

DRAWING NAME

**GRADING AND DRAINAGE  
RETAINING WALL  
EXHIBIT (SW)**

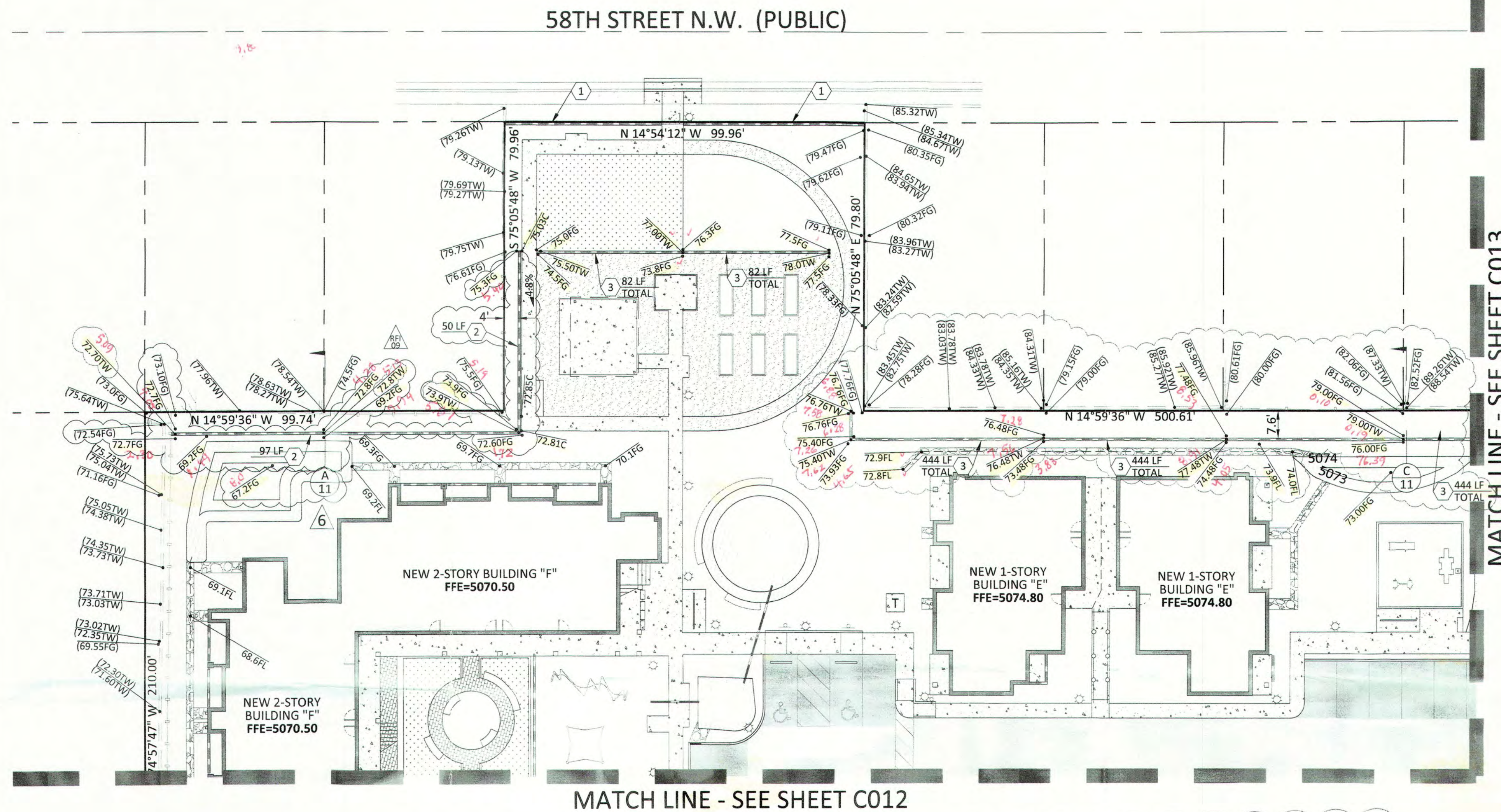
SHEET NO Done

**C011**

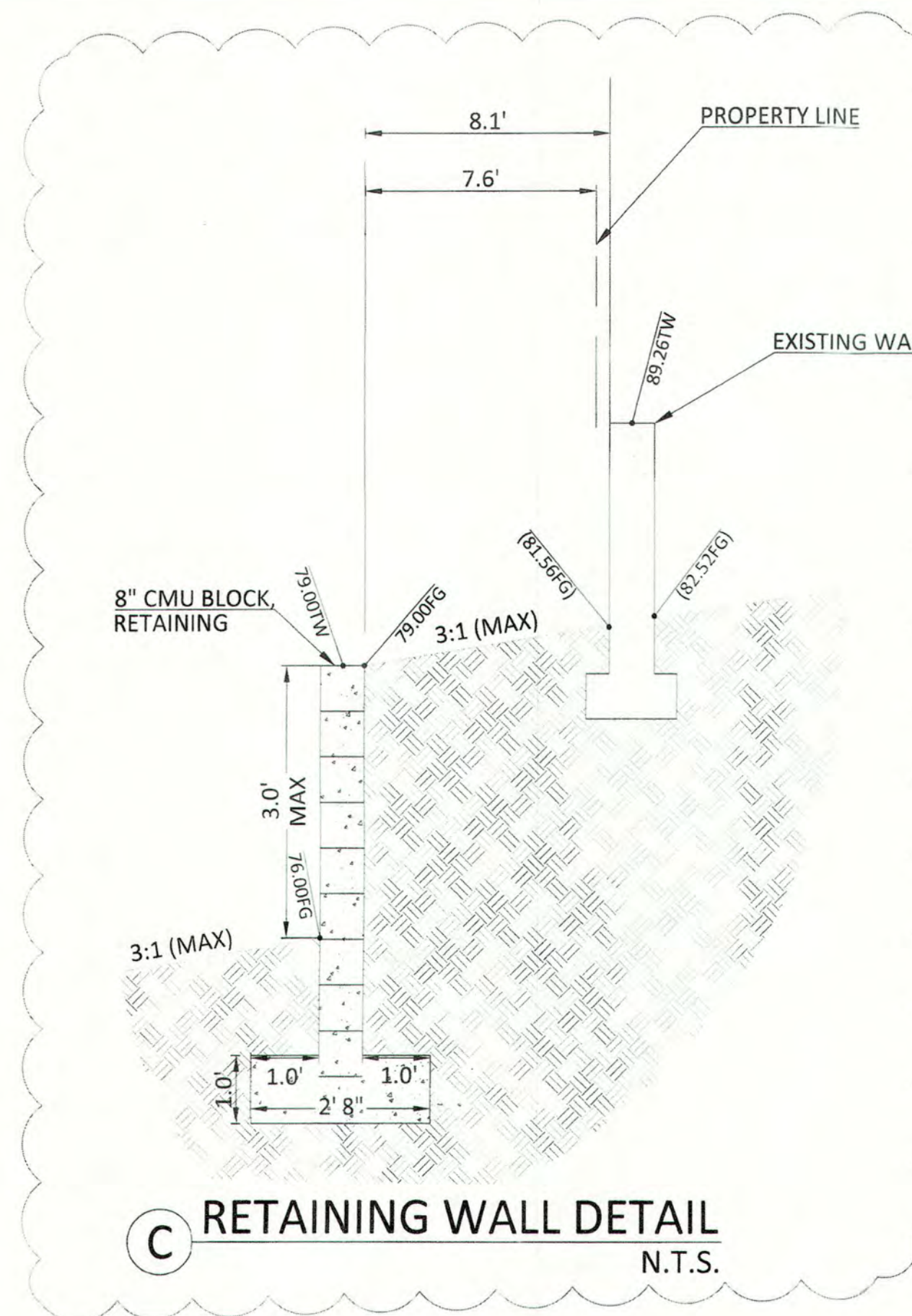
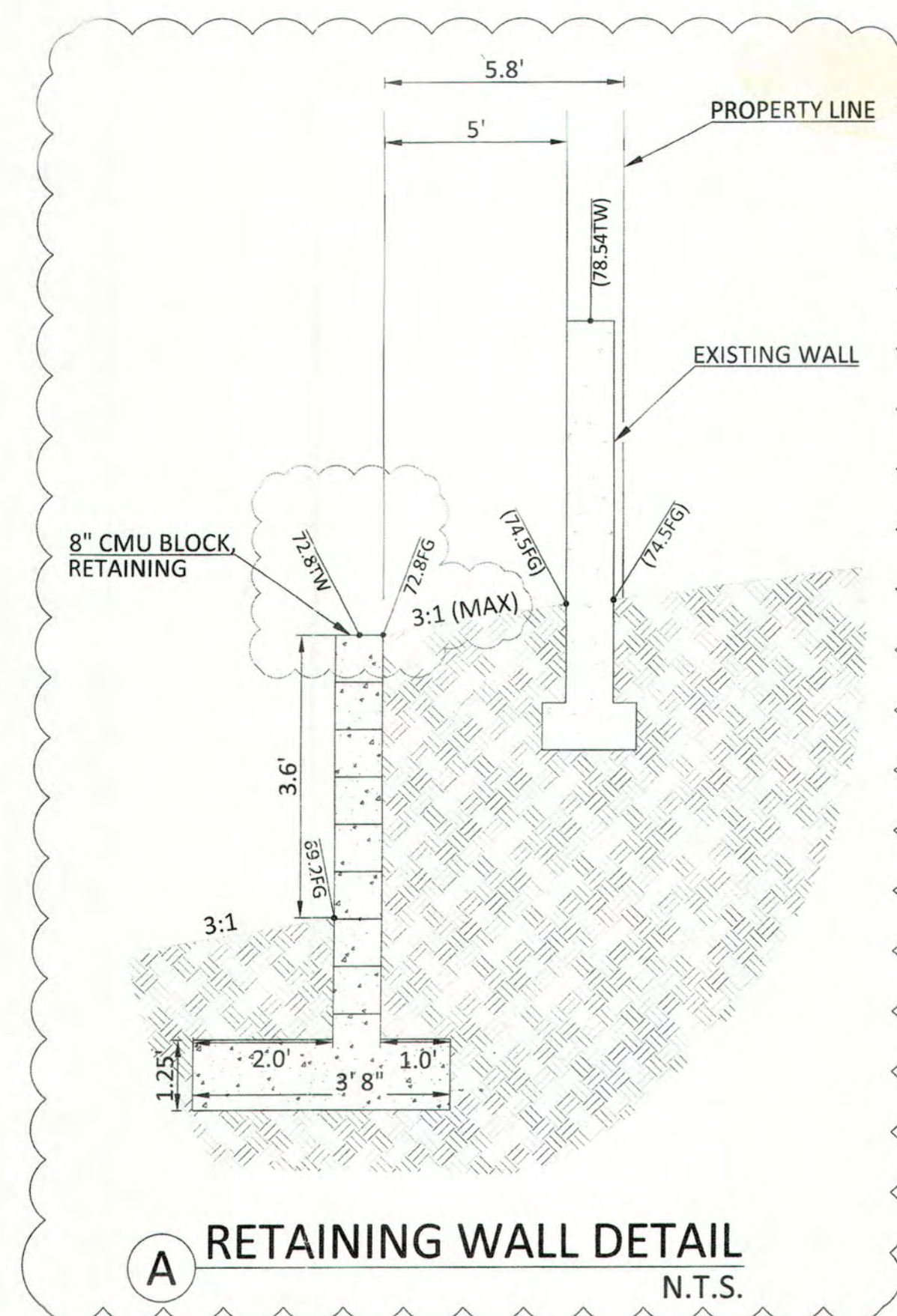
SCALE: 1"=20'  
C.I.=1 FOOT

**KEYNOTES**

- 1 NEW 6" MASONRY & PICKET FENCE SITE WALL. SEE BUILDING PLANS FOR DETAILS.
- 2 NEW 4' MAX RETAINING WALL. SEE SITE PLANS FOR MORE DETAIL.
- 3 NEW 3' MAX RETAINING WALL. SEE SITE PLANS FOR MORE DETAIL.



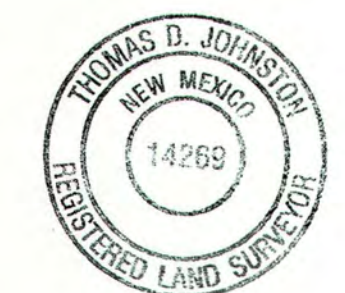
MATCH LINE - SEE SHEET C012



WAYJOHN SURVEYING, INC.  
1809 2ND STREET NW  
ALBUQUERQUE, NM 87102

GRADING AS-BUILT  
OCT. 2019

For AS-BUILT ONLY:

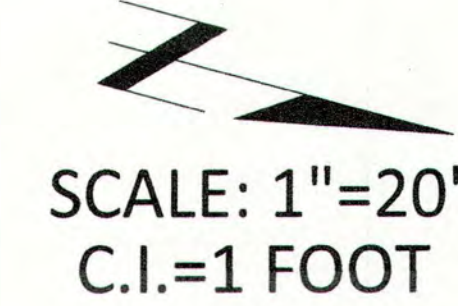


10/28/2019



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811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2





## KEYNOTES

~~3 NEW 3' MAX RETAINING WALL. SEE SITE PLANS FOR MORE DETAIL.~~

MATCH LINE - SEE SHEET C014

MATCH LINE - SEE SHEET C011

57TH STREET N.W. (PUBLIC)

**WAYJOHN SURVEYING, INC.**  
1609 2<sup>ND</sup> STREET NW  
ALBUQUERQUE, NM 87102

GRADING AS-BUILT  
OCT. 2019



10/28/2019

For AS-BUILT ONLY:



*R. M. Hall*

**B** RETAINING WALL DETAIL  
N.T.S.



FOR LOCATE REQUESTS CALL:  
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EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2

C012





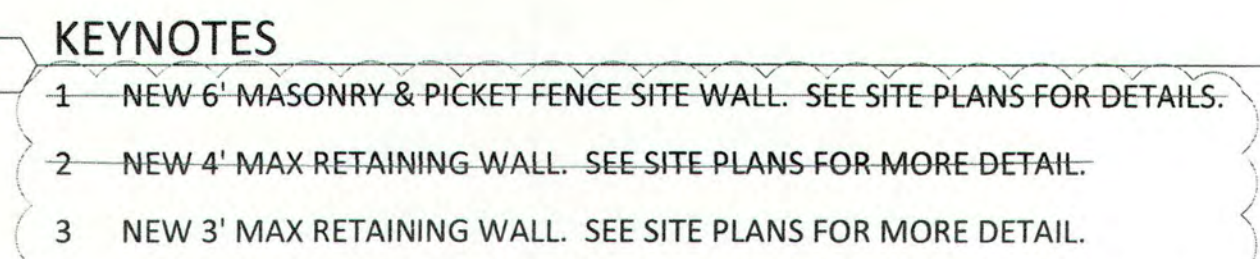
**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

SIONS	
06/11/2018 ASI-002	
OWN BY	JMR
VIEWED BY	KML JR
E	06/11/2018 KML
SUBJECT NO	14-070
	14-0701
OWING NAME	

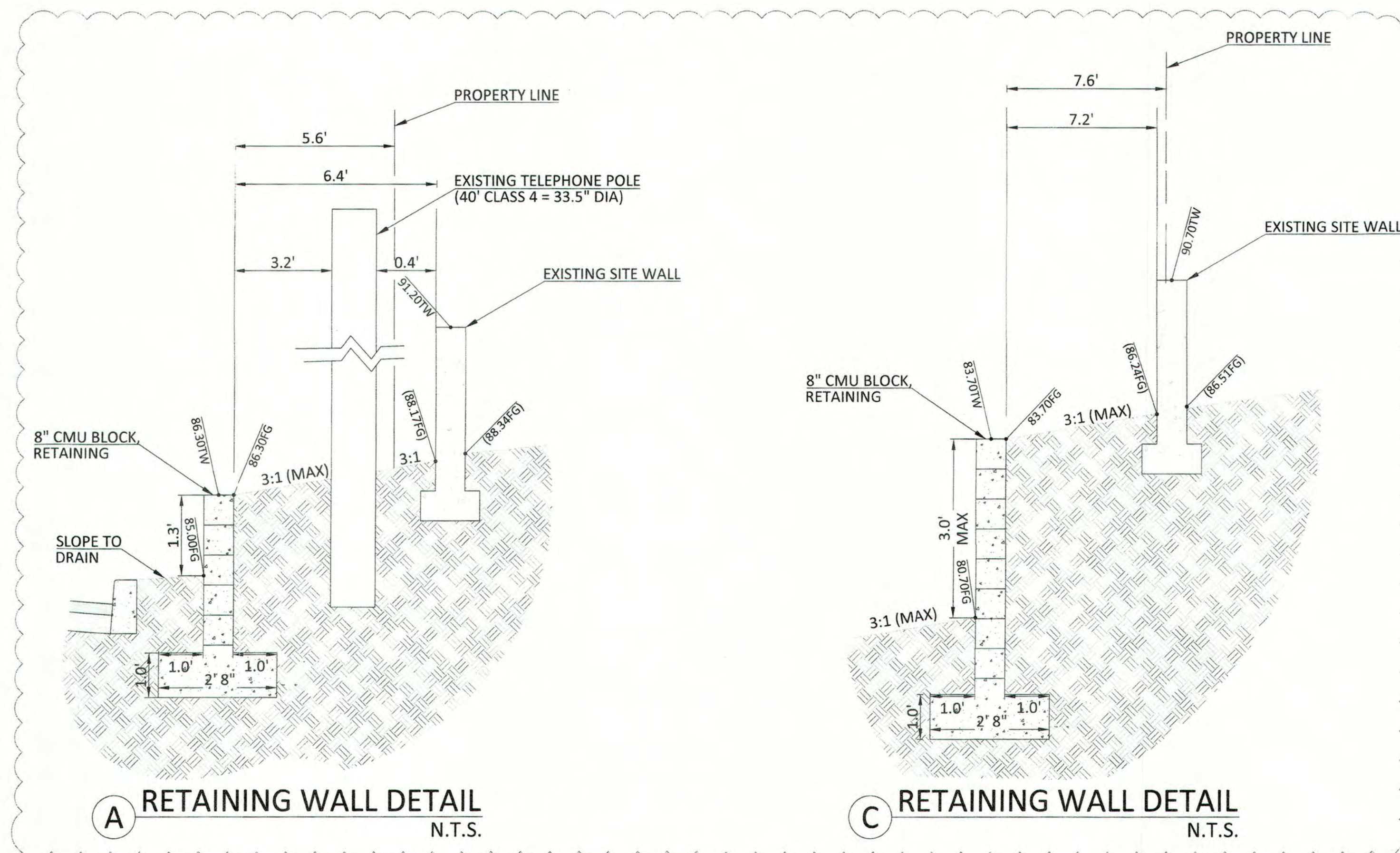
RETAINING WALL  
EXHIBIT (NW)

SET NO                     

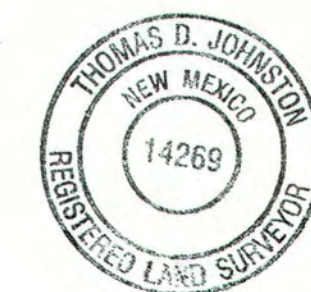
C013



SCALE: 1"=20'  
C.I.=1 FOOT



GRADING AS-BUILT  
OCT. 2019

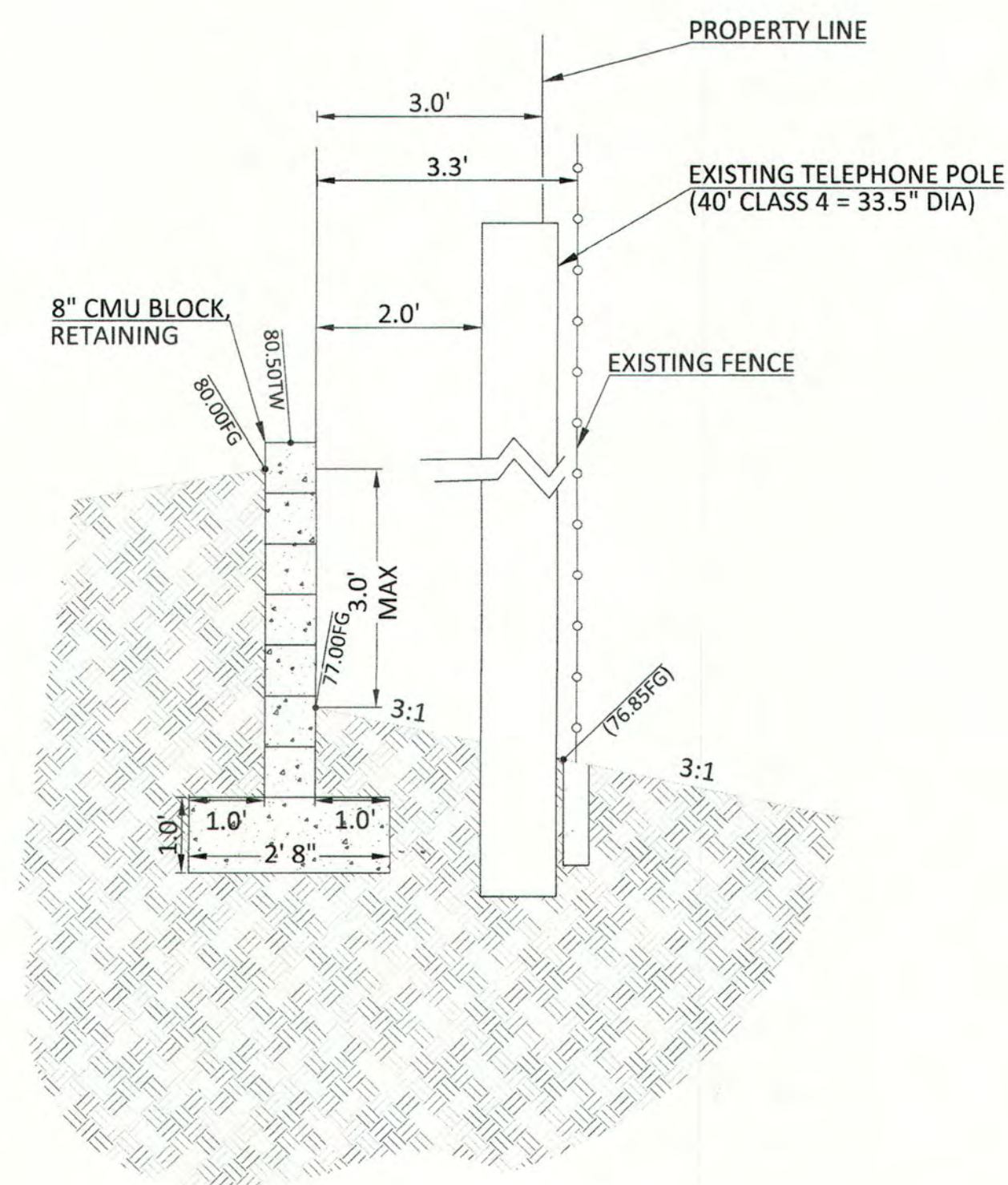
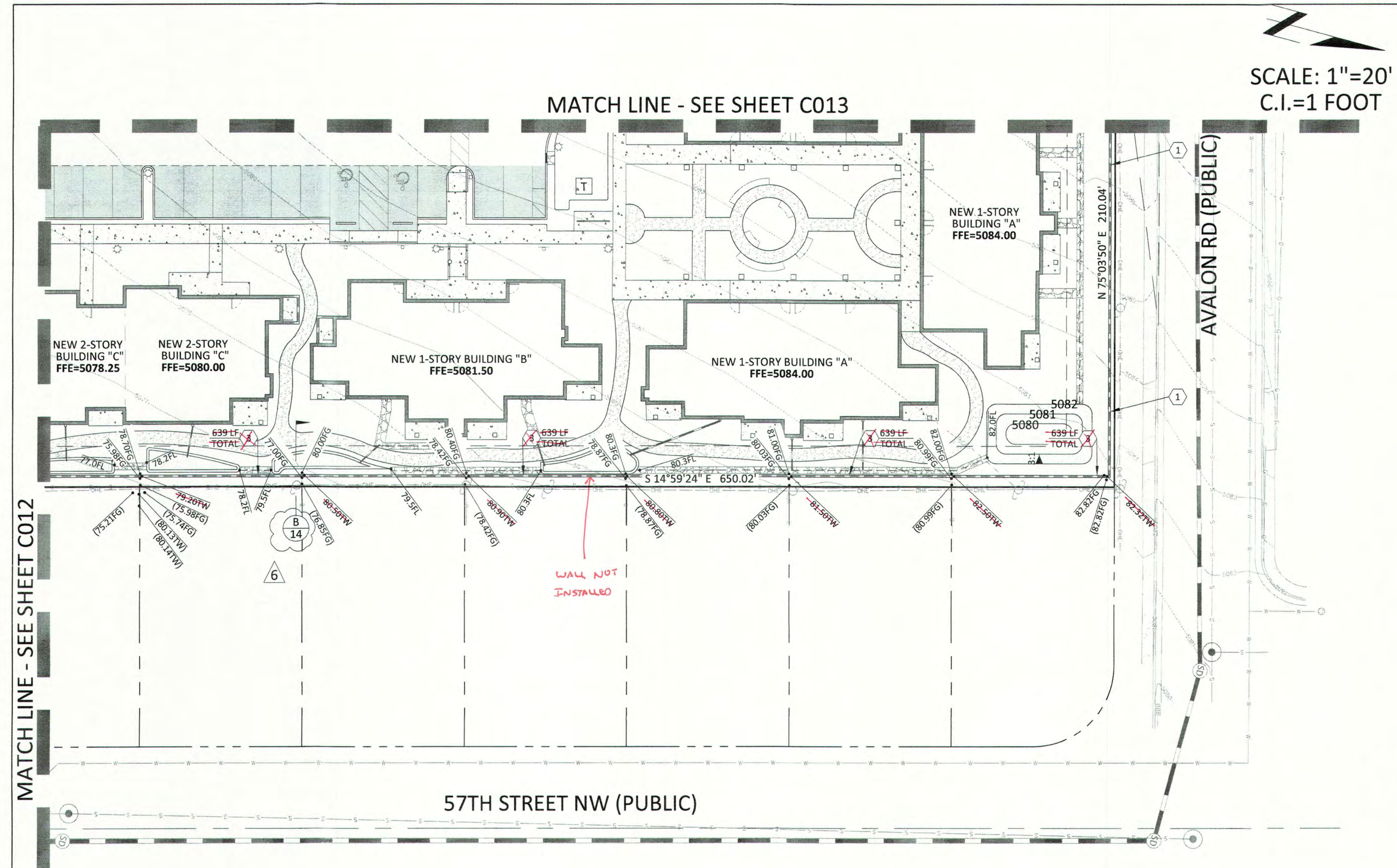


10/28/2019



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2





## B RETAINING WALL DETAIL

SCALE: 1"=20'  
C.I.=1 FOOT

## KEYNOTES

- 1 NEW 6' MASONRY & PICKET FENCE SITE WALL. SEE SITE PLANS FOR DETAILS.

**WAYJOHN SURVEYING, INC.**  
1609 2<sup>ND</sup> STREET NW  
ALBUQUERQUE, NM 87102

GRADING AS-BUILT  
OCT. 2019



10/28/2019

FOR AS-BUILT ONLY:



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2



## PRIVATE UTILITIES IMPROVEMENTS

1. ALL ON-SITE BUILDING SEWER COLLECTION LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.

2. ALL ON-SITE DOMESTIC WATER SUPPLY LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE, LATEST EDITION.

3. ALL ON-SITE FIRE SERVICE MAINS ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE, LATEST EDITION AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATION 24, LATEST EDITION.

## PRIVATE FIRE SUPPRESSION NOTES

1. INSTALLATION OF FIRE SERVICE UNDERGROUND SHALL CONFORM TO NFPA 13.
2. MINIMUM DEPTH OF BURY TO BE 36".
3. SYSTEM TO BE TESTED AT 200 PSI (OR 50 PSI ABOVE STREET PRESSURE) FOR 2 HOURS.
4. SYSTEM TO BE FLUSHED. FLUSH TO BE WITNESSED BY ALBUQUERQUE FIRE DEPARTMENT INSPECTOR.
5. RESTRAINT METHOD FOR NEW FIRE SERVICE INSTALLATION TO BE CONCRETE THRUST BLOCKS.
6. TRACER WIRE OR APPROVED EQUIVALENT SHALL BE INSTALLED WITH ALL UNDERGROUND PIPING.

## SEWER KEYNOTES

1. NEW PRIVATE 4" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.
2. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND INVERT(S).
3. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND PLUMBING PLAN FOR INVERT(S).
4. NEW PRIVATE 6" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.

## WATER KEYNOTES

1. NEW PRIVATE 3" PVC WATER MAIN PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
2. NEW PRIVATE 4" PVC FIRE SERVICE. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
5. NEW PRIVATE 2" WATER SERVICE. SEE KEYNOTE FOR LENGTH.
8. NEW PRIVATE FIRE HYDRANT PER COA STD DTL 2340.
15. NEW PRIVATE 6" DIP WATER LINE FOR FIRE HYDRANT PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
18. NEW 4" BACKFLOW PREVENTER AND POST INDICATOR VALVE CONTRACTOR TO CONFIRM SIZE AND LOCATION WITH FIRE PROTECTION PLAN.

## UTILITY CROSSINGS

1. SEWER/WATER CROSSING  
3" WATER INV=-68.47  
6" SEWER TOP=-66.97  
SEPARATION=1.50' (MIN)

SCALE: 1"=20'  
C.I. = 1 FOOT

MATCH LINE - SEE SHEET C017

MATCH LINE - SEE SHEET C016

## NOTE:

CONTRACTOR TO VERIFY ALL UTILITY INFORMATION SHOWN WITH BUILDING PLUMBING PLANS.

WAYJOHN SURVEYING, INC.  
1609 2nd STREET NW  
ALBUQUERQUE, NM 87102

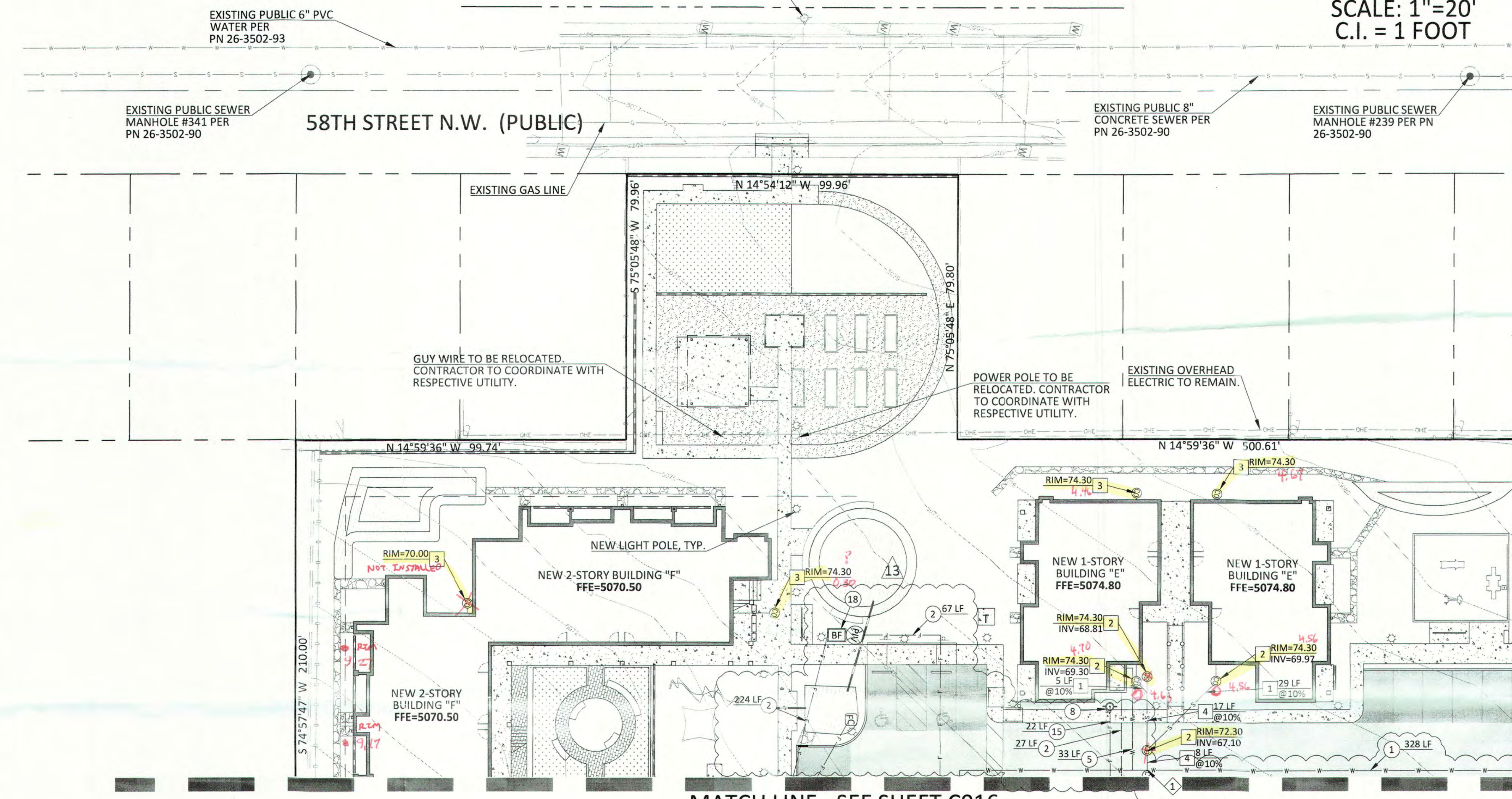
GRADING AS-BUILT

OCT. 2019



10/28/2019

For As-Built Only:



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2

ENGINEER

MASTER REFERENCE: Logo s=0 0112.jpg

2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER



PROJECT

**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

100% CONSTRUCTION  
DOCUMENTS

REVISIONS  
04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED  
08/23/2018 ASI-003

DRAWN BY JR  
REVIEWED BY KMH  
DATE 04/06/2018  
PROJECT NO 14-0701

DRAWING NAME

**UTILITIES +  
EASMENTS (SW)**

Done

SHEET NO

C015



## PRIVATE UTILITY IMPROVEMENTS

1. ALL ON-SITE BUILDING SERVICE CONNECTION LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
2. ALL ON-SITE DOMESTIC WATER SUPPLY LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
3. ALL ON-SITE FIRE SERVICE MAINS ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE, LATEST EDITION AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATION 24, LATEST EDITION.

## PRIVATE FIRE SUPPRESSION NOTES

1. INSTALLATION OF FIRE SERVICE UNDERGROUND SHALL CONFORM TO NFPA 13.
2. MINIMUM DEPTH OF BURY TO BE 36".
3. SYSTEM TO BE TESTED AT 200 PSI (OR 50 PSI ABOVE STREET PRESSURE) FOR 2 HOURS.
4. SYSTEM TO BE FLUSHED. FLUSH TO BE WITNESSED BY ALBUQUERQUE FIRE DEPARTMENT INSPECTOR.
5. RESTRAINT METHOD FOR NEW FIRE SERVICE INSTALLATION TO BE CONCRETE THRUST BLOCKS.
6. TRACER WIRE OR APPROVED EQUIVALENT SHALL BE INSTALLED WITH ALL UNDERGROUND PIPING.

## SEWER KEYNOTES

1. NEW PRIVATE 4" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.
2. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND INVERT(S).
4. NEW PRIVATE 6" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.
5. CONNECT NEW PRIVATE 6" SEWER TO EXISTING PUBLIC MANHOLE PER ABCWUA STANDARDS AND SPECIFICATIONS.

## WATER KEYNOTES

2. NEW PRIVATE 4" PVC FIRE SERVICE. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
3. NEW PUBLIC FIRE HYDRANT PER COA STD DTL 2340 TO BE RELOCATED PER SEPARATE PLAN.
4. NEW PUBLIC 6" DIP WATER LINE FOR FIRE HYDRANT PER SEPARATE PLAN.
5. NEW PRIVATE 2" WATER SERVICE. SEE KEYNOTE FOR LENGTH.
8. NEW PRIVATE FIRE HYDRANT PER COA STD DTL 2340.
12. NEW PRIVATE 8" PVC FIRE LINE MAIN PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
15. NEW PRIVATE 6" DIP WATER LINE FOR FIRE HYDRANT PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
16. NEW PRIVATE 3/4" WATER SERVICE. SEE KEYNOTE FOR LENGTH. (TO BE USED FOR FROST FREE YARD HYDRANT).
17. NEW 4" FIRE SERVICE LINE FOR FDC. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
18. NEW 2" BACKFLOW PREVENTER.
19. NEW 2" WATER METER PER SEPARATE PLAN.

WAYJOHN SURVEYING, INC.  
1806 2<sup>ND</sup> STREET NW  
ALBUQUERQUE, NM 87102GRADING AS-BUILT  
OCT. 2019

For As-Built Only:



ENGINEER

P:\MASTER REFERENCE\Logo - 8.18.2019

2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER



PROJECT

GENERATIONS  
AT WEST MESA  
5710 Avalon Road, NW  
Albuquerque, NM 87105100% CONSTRUCTION  
DOCUMENTSREVISIONS  
04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED  
08/23/2018 ASI-003DRAWN BY JR  
REVIEWED BY KMH  
DATE 04/06/2018  
PROJECT NO 14-0701

DRAWING NAME

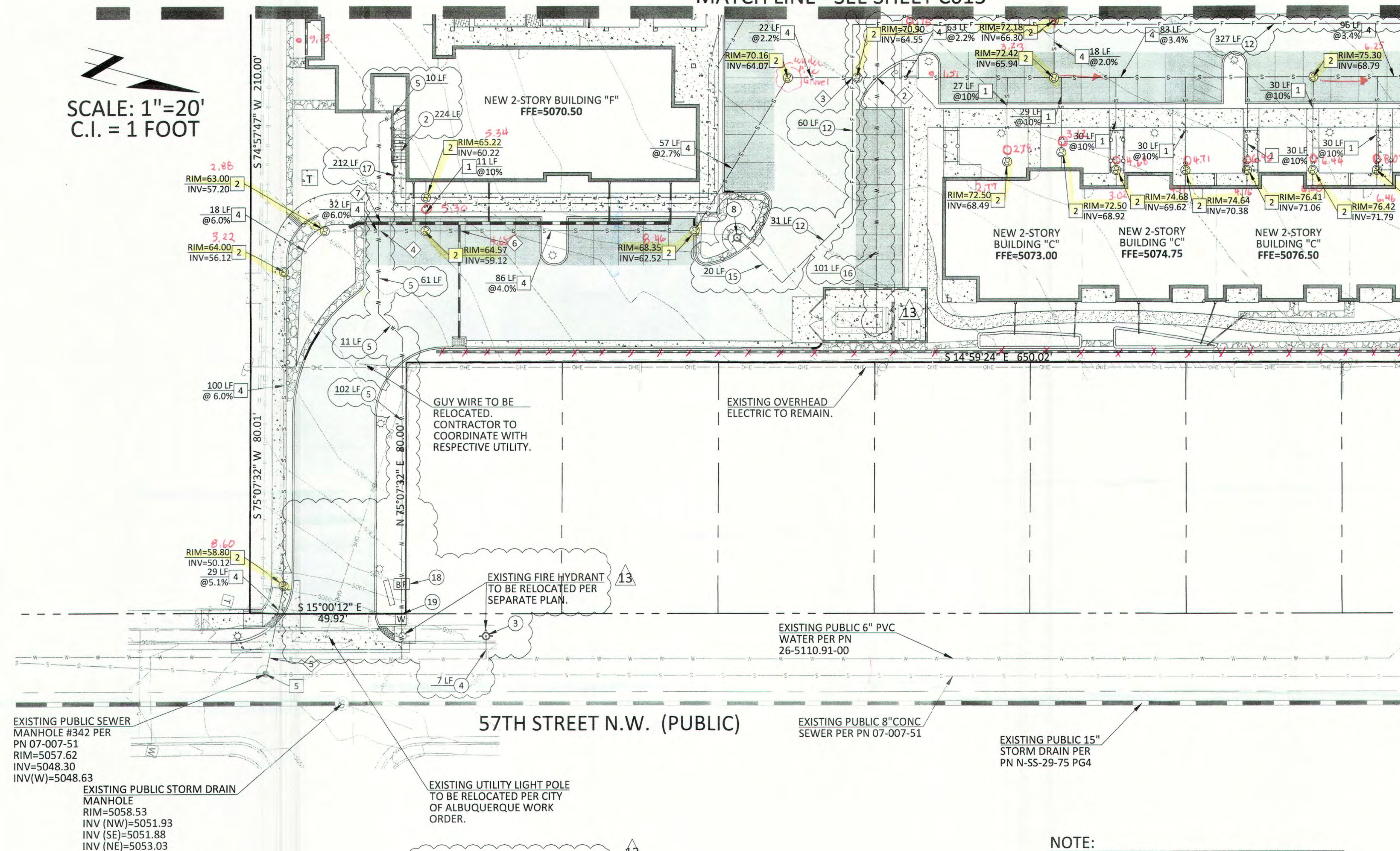
UTILITIES +  
EASEMENTS (SE)

Done

SHEET NO

C016

MATCH LINE - SEE SHEET C015

SCALE: 1"=20'  
C.I. = 1 FOOTFOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2



## PRIVATE UTILITY IMPROVEMENTS

1. ALL ON-SITE BUILDING SERVICE LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
2. ALL ON-SITE DOMESTIC WATER SUPPLY LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE, LATEST EDITION.
3. ALL ON-SITE FIRE SERVICE MAINS ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE, LATEST EDITION AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATION 24, LATEST EDITION.

## PRIVATE FIRE SUPPRESSION NOTES

1. INSTALLATION OF FIRE SERVICE UNDERGROUND SHALL CONFORM TO NFPA 13.
2. MINIMUM DEPTH OF BURY TO BE 36".
3. SYSTEM TO BE TESTED AT 200 PSI (OR 50 PSI ABOVE STREET PRESSURE) FOR 2 HOURS.
4. SYSTEM TO BE FLUSHED. FLUSH TO BE WITNESSED BY ALBUQUERQUE FIRE DEPARTMENT INSPECTOR.
5. RESTRAINT METHOD FOR NEW FIRE SERVICE INSTALLATION TO BE CONCRETE THRUST BLOCKS.
6. TRACER WIRE OR APPROVED EQUIVALENT SHALL BE INSTALLED WITH ALL UNDERGROUND PIPING.

## SEWER KEYNOTES

1. NEW PRIVATE 4" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.
2. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND INVERT(S).
3. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND PLUMBING PLAN FOR INVERT(S).
4. NEW PRIVATE 6" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.

## WATER KEYNOTES

1. NEW PRIVATE 3" PVC WATER MAIN PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
2. NEW PRIVATE 4" PVC FIRE SERVICE. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
5. NEW PRIVATE 2" WATER SERVICE. SEE KEYNOTE FOR LENGTH.
6. NEW 3" BACKFLOW PREVENTER PER ABCWUA STANDARDS.
7. NEW 3" WATER METER PER ABCWUA STANDARDS. INSTALL LARGE DIAMETER METER VAULT PER COA STD DTL 2370.
8. NEW PRIVATE FIRE HYDRANT PER COA STD DTL 2340.
9. NEW 8" BACKFLOW PREVENTER PER ABCWUA STANDARDS.
10. NEW 1.5" SERVICE TAP FOR IRRIGATION, SEE LANDSCAPE PLAN FOR MORE DETAIL.
12. NEW PRIVATE 8" PVC FIRE LINE MAIN PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
15. NEW PRIVATE 6" DIP WATER LINE FOR FIRE HYDRANT PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
17. NEW 4" FIRE SERVICE LINE FOR FDC. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
18. NEW 4" BACKFLOW PREVENTER AND POST INDICATOR VALVE CONTRACTOR TO CONFIRM SIZE AND LOCATION WITH FIRE PROTECTION PLAN.
20. NEW PUBLIC 3" PVC WATER MAIN PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.

ENGINEER

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2030 east speedway boulevard  
suite #110  
tucson, arizona 85719  
ph: 520.499.2456  
e: kmhall@cypresscivil.com

ENGINEER



PROJECT

**GENERATIONS  
AT WEST MESA**  
5710 Avalon Road, NW  
Albuquerque, NM 87105

100% CONSTRUCTION  
DOCUMENTS

REVISIONS

04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED  
08/23/2018 ASI-003

DRAWN BY

JR

REVIEWED BY

KMH

DATE

04/06/2018

PROJECT NO

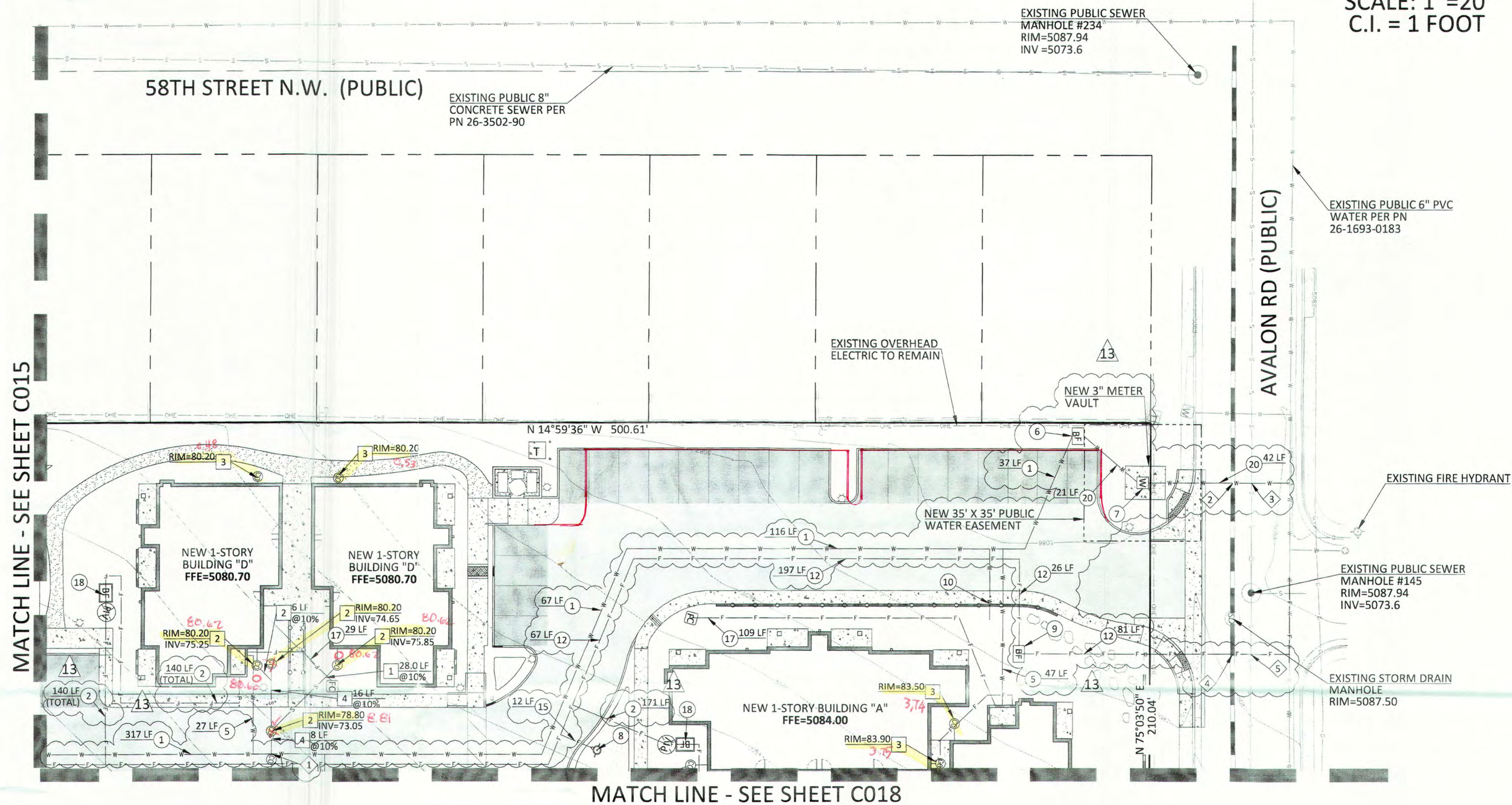
14-0701

DRAWING NAME

**UTILITIES +  
EASEMENTS (NW)**

SHEET NO

C017

SCALE: 1"=20'  
C.I. = 1 FOOT

## UTILITY CROSSINGS

1. SEWER/WATER CROSSING  
3" WATER INV=68.97  
6" SEWER TOP=66.97  
SEPARATION=2.0'
2. SEWER/WATER CROSSING  
3" WATER INV=84.36  
15" STORM DRAIN=82.36\*  
SEPARATION=2.0' (1.5' MIN)
3. SEWER/WATER CROSSING  
3" WATER INV=84.36  
48" SEWER TOP=78.1 (APPROX.)  
SEPARATION=6.3' (1.5' MIN)
4. SEWER/WATER CROSSING  
8" WATER INV=84.02  
15" STORM DRAIN=82.20\*  
SEPARATION=1.8' (1.5' MIN)
5. SEWER/WATER CROSSING  
8" WATER INV=84.02  
48" SEWER TOP=78.00 (APPROX.)  
SEPARATION=6.0' (1.5' MIN)

\*CONTRACTOR TO VERIFY INVERT OF STORM DRAIN AS NO  
SURVEY OR AS-BUILT INFORMATION WAS PROVIDED.  
CONTRACTOR TO MAINTAIN 1.5' SEPARATION BETWEEN NEW  
WATERLINE AND EXISTING 15" STORM DRAIN.

## NOTE:

CONTRACTOR TO VERIFY ALL UTILITY INFORMATION SHOWN  
WITH BUILDING PLUMBING PLANS.

WAYJOHN SURVEYING, INC.  
1800 2ND STREET NW  
ALBUQUERQUE, NM 87102

GRADING AS-BUILT  
OCT. 2019



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2



## PRIVATE UTILITIES IMPROVED

1. ALL ON-SITE BUILDING SEWER COLLECTION LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
2. ALL ON-SITE DOMESTIC WATER SUPPLY LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
3. ALL ON-SITE FIRE SERVICE MAINS ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE, LATEST EDITION AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATION 24, LATEST EDITION.

## PRIVATE FIRE SUPPRESSION NOTES

1. INSTALLATION OF FIRE SERVICE UNDERGROUND SHALL CONFORM TO NFPA 13.
2. MINIMUM DEPTH OF BURY TO BE 36".
3. SYSTEM TO BE TESTED AT 200 PSI (OR 50 PSI ABOVE STREET PRESSURE) FOR 2 HOURS.
4. SYSTEM TO BE FLUSHED. FLUSH TO BE WITNESSED BY ALBUQUERQUE FIRE DEPARTMENT INSPECTOR.
5. RESTRAINT METHOD FOR NEW FIRE SERVICE INSTALLATION TO BE CONCRETE THRUST BLOCKS.
6. TRACER WIRE OR APPROVED EQUIVALENT SHALL BE INSTALLED WITH ALL UNDERGROUND PIPING.

## SEWER KEYNOTES

1. NEW PRIVATE 4" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.
2. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND INVERT(S).
3. NEW PRIVATE SEWER CLEANOUT. SEE KEYNOTE FOR RIM AND PLUMBING PLAN FOR INVERT(S).
4. NEW PRIVATE 6" PVC SEWER LINE. SEE KEYNOTE FOR LENGTH AND SLOPE.
5. CONNECT NEW PRIVATE 6" SEWER TO EXISTING PUBLIC MANHOLE PER ABCWUA STANDARDS AND SPECIFICATIONS.

## WATER KEYNOTES

2. NEW PRIVATE 4" PVC FIRE SERVICE. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
5. NEW PRIVATE 2" WATER SERVICE. SEE KEYNOTE FOR LENGTH.
12. NEW PRIVATE 8" PVC FIRE LINE MAIN PER ABCWUA STANDARDS. SEE KEYNOTE FOR LENGTH.
13. NEW PRIVATE 1.5" WATER SERVICE. SEE KEYNOTE FOR LENGTH.
17. NEW 4" FIRE SERVICE LINE FOR FDC. SEE KEYNOTE FOR LENGTH. CONTRACTOR TO CONFIRM SIZE AND ALIGNMENT WITH FIRE PROTECTION PLAN.
18. NEW 4" BACKFLOW PREVENTER AND POST INDICATOR VALVE CONTRACTOR TO CONFIRM SIZE AND LOCATION WITH FIRE PROTECTION PLAN.

## NOTE:

CONTRACTOR TO VERIFY ALL UTILITY INFORMATION SHOWN WITH BUILDING PLUMBING PLANS.

WAYJOHN SURVEYING, INC.  
1809 2ND STREET NW  
ALBUQUERQUE, NM 87102

GRADING AS-BUILT  
OCT. 2019



10/28/2019

For As-Built Only:



MATCH LINE - SEE SHEET C016

MATCH LINE - SEE SHEET C017

SCALE: 1"=20'  
C.I. = 1 FOOT

57TH STREET NW (PUBLIC)

AVALON RD (PUBLIC)

EXISTING OVERHEAD  
ELECTRIC TO REMAIN.

EXISTING PUBLIC 48" RCP  
SEWER PER  
PN 07-088-63

EXISTING PUBLIC STORM  
DRAIN MANHOLE  
RIM=5080.87

EXISTING PUBLIC STORM  
DRAIN INLET  
TOP OF GRATE=5079.61  
INV (NE)=5076.9

EXISTING PUBLIC SEWER  
MANHOLE #149  
RIM=5081.29  
INV=5072.3

EXISTING PUBLIC 6" PVC  
WATER PER PN  
26-1693-0183

EXISTING PUBLIC SEWER  
MANHOLE #141  
RIM=5079.71

EXISTING PUBLIC STORM DRAIN  
MANHOLE

EXISTING PUBLIC SEWER  
MANHOLE #241  
RIM=5070.74  
INV (N)=5062.2  
INV (S)=5062.1

EXISTING PUBLIC STORM DRAIN  
MANHOLE  
RIM=5070.60  
INV=(INACCESSIBLE)

EXISTING PUBLIC 8" CONCRETE  
SEWER PER  
PN 07-007-51

EXISTING PUBLIC 6" PVC  
WATER PER PN  
26-5110.91-00

## UTILITY CROSSINGS

1. SEWER/WATER CROSSING  
8" WATER INV=73.81  
6" SEWER TOP=72.25  
SEPARATION=1.56' (1.50' MIN)
2. SEWER/WATER CROSSING  
4" WATER INV=76.94  
6" SEWER TOP=74.01  
SEPARATION=2.9'
3. SEWER/WATER CROSSING  
1.5" WATER INV=76.9  
6" SEWER TOP=73.61  
SEPARATION=3.29'
4. SEWER/WATER CROSSING  
4" WATER INV=76.70  
6" SEWER TOP=73.48  
SEPARATION=3.22'
5. SEWER/WATER CROSSING  
2" WATER INV=76.26  
6" SEWER TOP=72.76  
SEPARATION=3.50'



FOR LOCATE REQUESTS CALL:  
811 OR 1-800-321-ALERT (2537)  
EXCAVATORS/CONTRACTORS  
CHOOSE OPTION 2

ENGINEER

MASTER REFERENCE LOGO s-n 0112.jpg

2030 east speedway boulevard  
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tucson, arizona 85719  
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ENGINEER



PROJECT

GENERATIONS  
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2. 04/06/2018 ADDENDUM 002:  
ALL SHEETS REISSUED  
13. 08/23/2018 ASI-003

DRAWN BY: JR

REVIEWED BY: KMH

DATE: 04/06/2018

PROJECT NO: 14-0701

DRAWING NAME

UTILITIES +  
EASEMENTS (NE)

Done

SHEET NO

C018