

LOCATION MAP

SCALE: 1"=1000'±
ZONE ATLAS MAP K-21

I. EXECUTIVE SUMMARY

THIS PLAN SERVES TO SUPPORT THE DEVELOPMENT OF AN ADDITION FOR HANS WITTLER AUTO. THE SITE IS LOCATED IN THE CITY OF ALBUQUERQUE AND IS KNOWN AS TRACT H OF THE LONGFIELD ADDITION. THIS PARCEL IS LOCATED IN THE NORTHEAST ALONG ELIZABETH STREET, JUST NORTH OF CENTRAL AVENUE. THE SITE ADDRESS IS 121 ELIZABETH STREET NE. THE PROPOSED CONSTRUCTION CONSISTS OF NEW BUILDING, PARKING LOT IMPROVEMENTS, SITE WALLS, RETENTION BASINS, LANDSCAPE AND OTHER AMENITIES. OFF-SITE CONSTRUCTION WILL INCLUDE A DRIVE PAD AND SIDEWALK. THE SITE WILL BE DEVELOPED CONCURRENTLY AND NO PHASING IS PROPOSED. LOTS WITHIN THIS SUBDIVISION ARE FULLY DEVELOPED. ALSO, RIGHT-OF-WAY STREET PAVEMENT, CURB AND GUTTER, PUBLIC UTILITIES AND DRAINAGE STRUCTURES FOR THE LONGFIELD ADDITION ARE IN PLACE. DUE TO THESE DEVELOPMENTS, OFF-SITE STORMWATER SHOULD NOT IMPACT THIS SITE. IT IS PROPOSED THAT STORMWATER GENERATED ON-SITE WILL BE CONVEYED TO THE RIGHT-OF-WAY AND TO THE EXISTING DRAINAGE EASEMENT. FLOWS WILL NOT EXCEED HISTORIC VALUES.

II. PROJECT DESCRIPTION

AS SHOWN ON THE LOCATION MAP THE SITE (29,953 SF = APPROXIMATELY 0.688 ACRES) IS LOCATED IN THE CITY OF ALBUQUERQUE AT 121 ELIZABETH STREET NE. CURRENTLY THE SITE IS DEVELOPED. THE SITE IS PLATTED AS "ONE (1) TRACT OF LAND SITUATE WITHIN SECTION 28, TOWNSHIP 10 NORTH, RANGE 4 EAST OF THE NEW MEXICO PRINCIPAL MERIDIAN IN VALENCIA COUNTY, NEW MEXICO, BEING TRACT H, AS SUCH TRACT IS SHOWN ON THE REPLAT TITLED "TRACTS A, B, C, D, E, F, G, AND H, LONGFIELD ADDITION", FILED IN THE OFFICE OF THE BERNALILLO COUNTY CLERK ON OCTOBER 12, 1984, IN PLAT CABINET Q25 FOLIO 62." FURTHERMORE, THE SITE IS LOCATED IN FLOOD ZONE X AS INDICATED BY FIRM NUMBER 35001C0359G, RECORDED ON SEPTEMBER 26, 2008 BY THE FEMA.

III. BACKGROUND DOCUMENTS

THERE IS NO KNOWN DRAINAGE REPORT FOR THIS SUBDIVISION. THE PLAN, THE FIRM, THE COA DEVELOPMENT PROCESS MANUAL, THE SITE SURVEY, AND THE PROPOSED GRADING AND DRAINAGE PLAN WERE UTILIZED FOR THE EXECUTION OF THIS HYDROLOGY AND HYDRAULIC ANALYSIS.

IV. EXISTING CONDITIONS

CURRENTLY THE SITE IS DEVELOPED AND CONTAINS AN EXISTING BUILDING, PAVEMENT, GRAVEL AREAS, CONCRETE AND REBAR. THERE IS VERY LITTLE VEGETATION ON THE PROJECT SITE. THE SITE NATURALLY EXIST WITH A HIGH POINT AND THEREFORE DRAINS TO THE ROW OF ELIZABETH STREET AND TO THE EXISTING DRAINAGE EASEMENT (DE). EXISTING RUN-OFF FLOW TO THE ROW IS DETERMINED TO BE 1.06 CFS, AND TO THE DE IS 2.07 CFS.

V. DEVELOPED CONDITIONS

THE PROPOSED ON-SITE CONSTRUCTION CONSISTS OF NEW BUILDING, PARKING LOT IMPROVEMENTS, SITE WALLS, RETENTION BASINS, LANDSCAPE AND OTHER AMENITIES. OFF-SITE CONSTRUCTION WILL INCLUDE A DRIVE PAD AND SIDEWALK. STORMWATER GENERATED ON-SITE WILL BE SURFACE ROUTED AND DIRECTED TOWARDS ELIZABETH STREET (ROW) AND THE EXISTING 10' DRAINAGE EASEMENT (DE). RUN-OFF FLOW TO THE ROW AFTER DEVELOPMENT IS DETERMINED TO BE 1.05 CFS, AND TO THE DE IS 1.80 CFS. ONE ONSITE LANDSCAPED AREA WILL BE UTILIZED AS A RETENTION BASIN WITH A MAXIMUM DEPTH OF 2' AND WILL RETAIN STORMWATER RUNOFF FROM A PORTION OF THE SITE. OTHER LANDSCAPED AREAS WILL BE DEPRESSED SIX INCHES. THEREFORE, PAVEMENT RUNOFF AND STORMWATER THAT FALLS IN THESE LANDSCAPED AREAS WILL SLOWLY PERCOLATE INTO THE GROUND AND SURROUNDING VEGETATION. ROOF RUN-OFF WILL BE CONVEYED UTILIZING ROOF SCUPPERS AND DOWNSPOUTS. DOWNSPOUTS WILL BE DIRECTED TOWARD PAVEMENT. THE RETENTION BASIN IS SIZED TO ACCOMMODATE THE 100-YR 24-HOUR EVENT FOR A PORTION OF THE SITE (SEE ANALYSIS).

VI. EROSION CONTROL

CURRENTLY 70% OF THE PARCEL IS HARD SURFACES (PAVEMENT, ROOFTOPS AND CONCRETE). AFTER DEVELOPMENT APPROXIMATELY 92% OF THE SITE WILL BE MADE-UP OF CONCRETE, ASPHALT AND ROOFTOP. THE PROPOSED CONSTRUCTION WILL INCREASE THE AMOUNT OF IMPERVIOUS AREA BY 22%. PERMANENT EROSION CONTROL AT SURFACE FLOW CONCENTRATION POINTS WILL CONSIST OF RIPRAP.

VII. WATER QUALITY ENHANCEMENTS

NO WATER QUALITY ENHANCEMENTS ARE PROPOSED.

VIII. GRADING PLAN

THE GRADING & DRAINAGE PLAN ON THIS SHEET SHOWS:
1. EX. SPOT ELEVATION AS TAKEN FROM RECENT TOPOGRAPHY
2. PROPOSED GRADES INDICATED BY SPOT ELEVATIONS
3. THE LIMITS AND CHARACTER OF THE EX. FEATURES TO REMAIN
4. THE LIMITS AND CHARACTER OF THE PROPOSED IMPROVEMENTS
5. CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES

IX. ANALYSIS

THE CALCULATIONS HEREON ANALYZE THE HYDROLOGY FOR BOTH THE EXISTING AND DEVELOPED CONDITIONS (PRE AND POST) UPON A 100 YEAR, 24-HOUR RAINFALL EVENT. THE PROCEDURE FOR 40 ACRES AND SMALLER BASINS, AS SET FORTH IN CHAPTER 22 OF THE DEVELOPMENT PROCESS MANUAL (DPM), VOLUME 1, 1997 REVISIONS IS USED TO QUANTIFY THE PEAK RATE OF DISCHARGE (Q) AND VOLUME (V) OF ON-SITE STORMWATER RUN-OFF. ALL DATA UTILIZED FOR ANALYSIS CAN BE FOUND BELOW UNDER SITE CHARACTERISTICS. RESULTS ARE PRESENTED BELOW.

HYDROLOGY ANALYSIS FOR PEAK RATE OF DISCHARGE (Q) AND PEAK VOLUME (V)

SITE CHARACTERISTICS:

DRAINAGE AREA = (SEE PRE AND POST-DEVELOPMENT MAP)
LAND TREATMENT (DPM CH. 22, TABLE A-4)
IMPERVIOUS = D
PERVIOUS = C=GRAVEL & B=LANDSCAPE
PRECIPITATION ZONE = 3 (DPM CH. 22, TABLE A-1)

PRE-DEVELOPMENT:

DRAINAGE AREA "A"
684 sf = 7.3% PERV. (C)
8,669 sf = 92.7% IMPERV.
ANALYSIS RESULTS
Q = 1.06 cfs
V = 2,143 cf

POST-DEVELOPMENT:

DRAINAGE AREA "A" 6.8%
395 ~~760~~ sf = ~~7.9%~~ PERV. (B)
5,447 ~~8,730~~ sf = ~~92.1%~~ IMPERV.
ANALYSIS RESULTS **93.2%**
0.70 Q = ~~1.06~~ cfs
1,327 V = ~~2,143~~ cf

DRAINAGE AREA "B"

8,401 sf = 40.8% PERV. (C)
12,199 sf = 59.2% IMPERV.
ANALYSIS RESULTS
Q = 2.07 cfs
V = 3,811 cf

DRAINAGE AREA "B" 3.0%

580 ~~566~~ sf = ~~3.6%~~ PERV. (B)
18,475 ~~16,271~~ sf = ~~96.4%~~ IMPERV.
ANALYSIS RESULTS **97%**
2.16 Q = ~~1.80~~ cfs
4,445 V = ~~3,687~~ cf

DRAINAGE AREA "C" 25.1%

1,269 ~~1,168~~ sf = ~~26.2%~~ PERV. (B)
3,787 ~~3,730~~ sf = ~~74.3%~~ IMPERV.
ANALYSIS RESULTS **74.9%**
0.51 Q = ~~0.47~~ cfs
999 V = ~~913~~ cf (RETAINED)

RETENTION BASIN DESCRIPTION AND VOLUME (V) CALCULATION:

THE PROPOSED RETENTION BASIN FOR AREAS "C" IS POLYGONAL AND WILL BE 24" DEEP (SEE PLAN). THE VOLUME IS CALCULATED AS FOLLOWS;

RETENTION BASIN "C"
POLYGONAL CHARACTERISTICS: 610 SF
TOP PERIMETER AREA = 854 SF
BOTTOM PERIMETER AREA = 228 SF
DEPTH = 1.70 FT
V = (1/2)(854 SF + 228 SF)(1.7 FT) = 920 CF
643 SF 2.3 FT 1,002 CF

X. CONCLUSION

THE PROPOSED SITE WILL ADEQUATELY CONVEY STORMWATER GENERATED ON-SITE BY A 100 YEAR, 24-HOUR STORM EVENT IF CONSTRUCTED IN STRICT ACCORDANCE WITH THE IMPROVEMENTS SHOWN ON THIS GRADING AND DRAINAGE PLAN. FURTHERMORE, THE SITE HYDRAULICS WILL ALLOW 1.05 CFS OF STORMWATER TO RUN OFF INTO THE ROW, AND 1.80 CFS INTO THE EXISTING DRAINAGE EASEMENT. MORE SPECIFICALLY, AND IN ACCORDANCE WITH THE ABOVE ANALYSIS, STORMWATER RUNOFF FROM; DRAINAGE AREA "A" WILL SHEET FLOW TO ELIZABETH STREET, DRAINAGE AREA "B" WILL SHEET FLOW TO THE EXISTING DRAINAGE EASEMENT, AND DRAINAGE AREA "C" WILL BE RETAINED ON-SITE. ALL ON-SITE STORM DRAINAGE FACILITIES WILL BE PRIVATELY OWNED, OPERATED AND MAINTAINED.

DRAINAGE CERTIFICATION
I, JOSEPH CASARES, NMPE 19014, OF THE FIRM JCII GROUP, LLC, 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 8/28/13. THE RECORD INFORMATION HAS BEEN OBTAINED BY TIMOTHY MARTINEZ, NMPS 13982, OF THE FIRM TM SURVEYING, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 5/6/14 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.

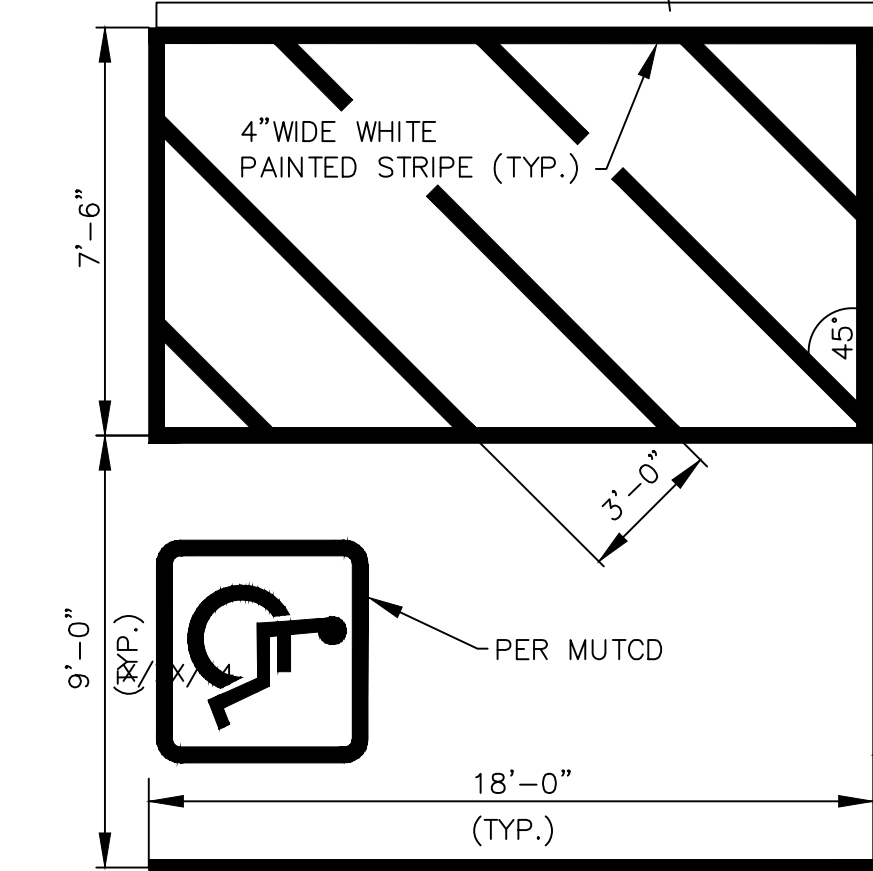
THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER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

JOSEPH CASARES, NMPE 19014

JCII GROUP, LLC,
7225 ARDOSO PL. NW,
ALBUQUERQUE, NM 87120

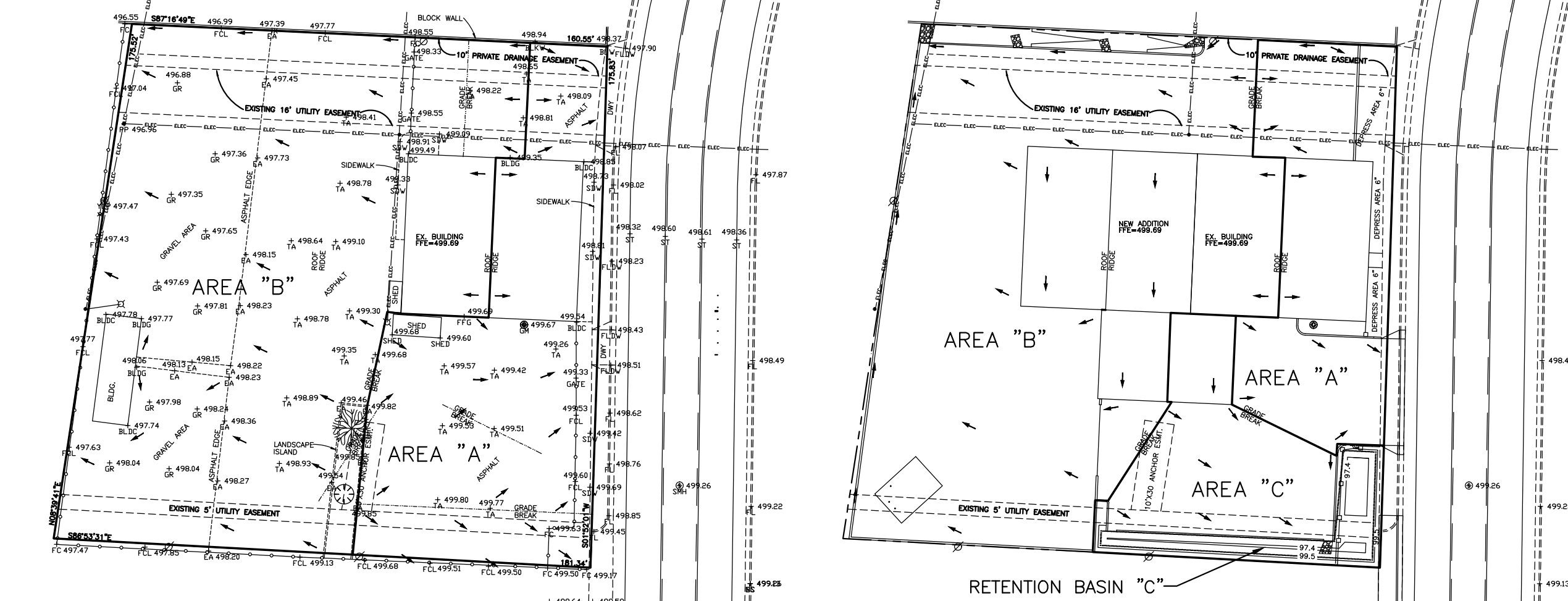
5/9/14

DATE



③ HC PARKING SPACE DETAIL

SCALE: 1/4" = 1'-0"

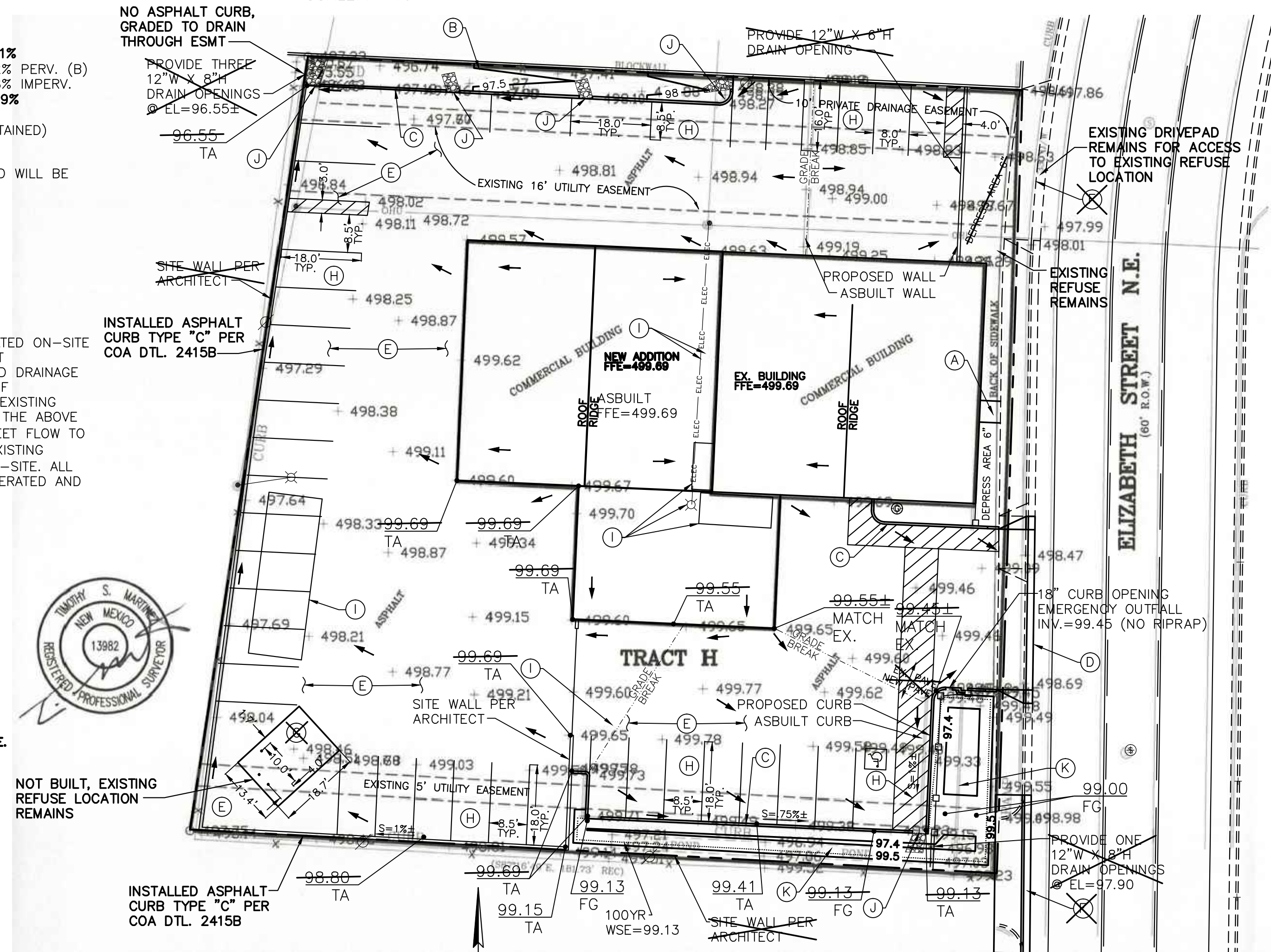


PRE-DEVELOPMENT/EX. TOPOGRAPHY

SCALE: 1"=40'

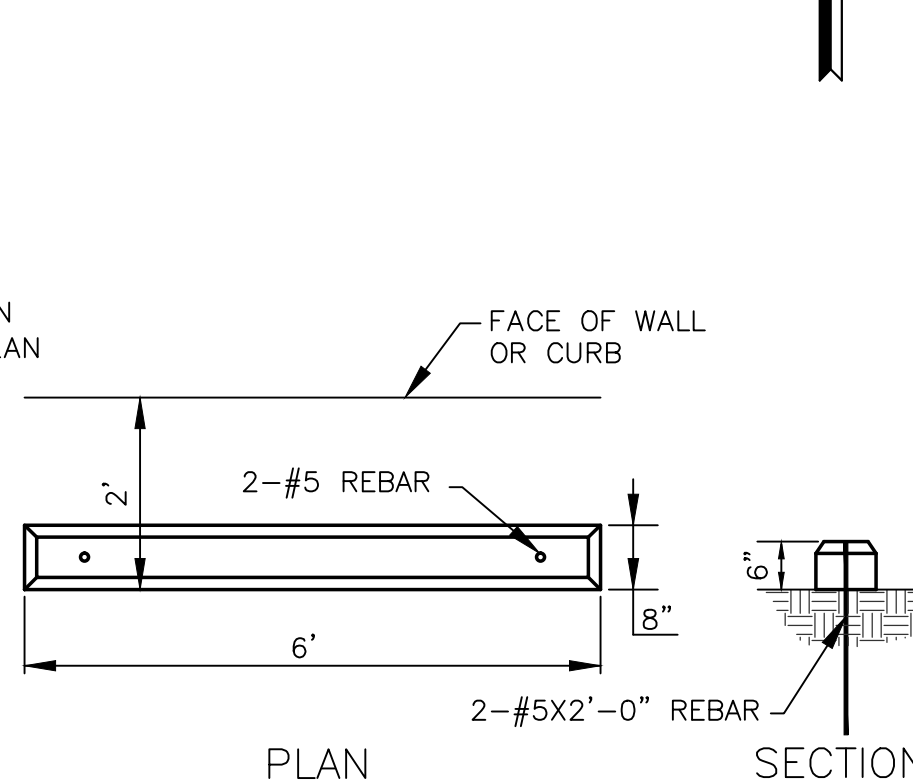
POST-DEVELOPMENT

SCALE: 1"=40'



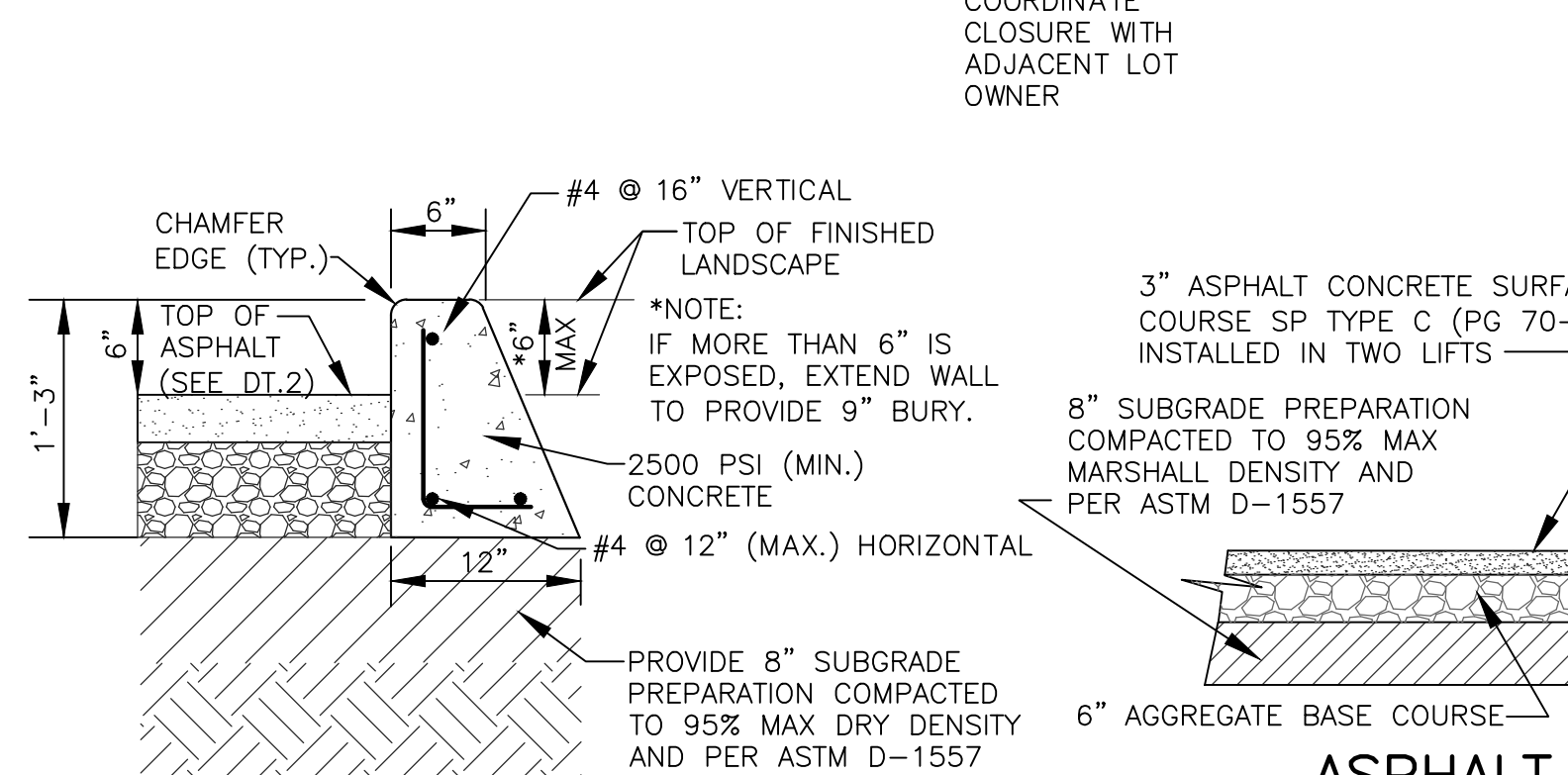
GRADING & DRAINAGE PLAN

SCALE: 1"=20'



⑤ PARKING BUMPER

SCALE: 1/2"=1'



① HEADER CURB

SCALE: 1"=1'-0"

② PAVEMENT SECTION

SCALE: 1/2"=1'

GRADING & DRAINAGE GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ROW WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH COA SPECIFICATION AND DETAILS.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990), FOR LOCATION OF EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES AND OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR WILL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P, AND LOCAL ORDINANCES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO KNOW AND COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970".
- CONTRACTOR SHALL SCARIFY TO A DEPTH OF 8" AND RECOMPACT SUBGRADE TO 95% MAX. DENSITY AS DETERMINED BY ASTM D-1557 UNLESS NOTED OTHERWISE.
- CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING BORROW MATERIAL OR HAULING OFF EXCESS MATERIAL.
- WHEN ABUTTING NEW CONCRETE TO EXISTING, CUT BACK EXISTING TO A NEAT STRAIGHT LINE TO REMOVE ANY BROKEN OR CRACKED CONCRETE, AND MATCH NEW TO EXISTING.
- EXERCISE CARE TO AVOID DISTURBING EXISTING UTILITIES, AND COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION.
- CONSTRUCTION AREAS SHALL BE WATERED OR OTHERWISE KEPT DUST FREE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND ADHERING TO AN APPROVED SWPPP IF MORE THAN ONE ACRE IS DISTURBED.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL DEMOLITION DEBRIS. WORK MATERIALS SHALL BE DISPOSED OF IN A CITY APPROVED WASTE AREA, IN ACCORDANCE WITH ALBUQUERQUE SPECIFICATIONS.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED UTILITY LINES THAT ARE EXPOSED AS A RESULT OF CONSTRUCTION. COORDINATE WITH THE UTILITY OWNER.
- THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH "AS-BUILT" PLANS.
- THE CONTRACTOR AGREES TO TAKE NECESSARY SAFETY PRECAUTIONS AS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC IN THE CONSTRUCTION AREA, WHICH INCLUDE BUT ARE NOT LIMITED TO: MAINTAINING ADEQUATE WARNING SIGNS, BARRICADES, LIGHTS, GUARD FENCES, WALKS AND BRIDGES.
- CONTRACTOR SHALL ADJUST CLEANOUT RIMS, VALVE CANS, AND OTHER SURFACE UTILITIES AS NEEDED TO MATCH FINISHED ELEVATIONS.
- ALL LANDSCAPED AREAS SHALL BE DEPRESSED 6" (MIN.) BELOW ADJACENT CONCRETE UNLESS OTHERWISE NOTED IN THESE PLANS. COORDINATE WITH LANDSCAPE PLANS.
- A STRUCTURAL ENGINEER SHALL ANALYZE THE PROPOSED AND EXISTING BLOCK WALLS, FENCING, AND BUILDINGS FOR STABILITY UNDER SATURATED CONDITIONS.
- COORDINATE WITH STRUCTURAL AND ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS.
- COORDINATE WITH THE ENGINEER FOR ANY CHANGES MADE TO THESE PROPOSED IMPROVEMENTS DUE TO CONFLICTS WITH OTHER ENGINEERING OR DESIGN ASPECTS.
- PROJECT BENCHMARK IS ALBUQUERQUE CITY SURVEY MONUMENT "5-K20" ELEV.=5429.99 (NAVD 1988).

CONSTRUCTION NOTES

- CONSTRUCT 4" THICK CONCRETE (2500 PSI) WALKWAY WITH 6"x6"x#10. WIRE MESH. PROVIDE 1/4" PER 1' SLOPE (MIN.) AWAY FROM BUILDING. FINISH PER OWNER.
- CONSTRUCT SWALE PER DETAIL 4, THIS SHEET, TOP OF FINISHED LANDSCAPE (OR GRAVEL) TO BE AT ELEVATION AS SHOWN ON PLAN.
- CONSTRUCT HEADER CURB (APPROX. 267 L.F.) PER DETAIL 1, THIS SHEET.
- CONSTRUCT CONCRETE DRIVE PAD PER COA DETAIL 2425. MAINTAIN EXISTING GUTTER FLOWLINE. COORDINATE WITH SITE PLAN FOR SIZE.
- CONSTRUCT NEW ASPHALT SECTION (APPROX 1,555 S.Y.) PER DETAIL 2, THIS SHEET, COORDINATE WITH SOILS REPORT RECOMMENDATIONS.
- CONSTRUCT 6' WIDE RIGHT-OF-WAY SIDEWALK (APPROX. 52 S.Y.) WITH CURB & GUTTER (APPROX. 77 L.F.) PER COA DETAIL 2430 AND 2415A.
- CONSTRUCT CONCRETE PAD (APPROX. 28 S.Y.) PER SIZE AS SHOWN. PROVIDE 6" THICK CONCRETE (4000 PSI) WITH 1" TURNDOWN EDGE, OVER 4" MAT OF 3/4" BASE COURSE. PROVIDE 6"x6"x#10 GAUGE WIRE MESH REINFORCING. INSTALL BOLLARDS AS SHOWN. FILL EACH BOLLARD WITH CONCRETE. SEE SITE PLAN FOR ADDITIONAL DETAILS.
- STRIPED PARKING WITH 4" WIDE WHITE PAVEMENT PAINT, PROVIDE HANDICAP PARKING SPACE PER DETAIL 3. ADD PARKING BUMPERS TO ALL SPOTS PER DETAIL 5. PROVIDE STRIPED WALKWAY AS SHOWN.
- REMOVE EXISTING OBSTRUCTION. COORDINATE WITH OWNER FOR SALVAGE. IF UTILITY, COORDINATE REMOVAL WITH APPROPRIATE UTILITY COMPANY.
- PROVIDE 3' (UNLESS NOTED OTHERWISE) CURB OPENING TO FACILITATE DRAINAGE, AND PROVIDE 6"-8" RIPRAP AT 1" THICK (APPROX. 3 C.Y.) TO BOTTOM OF SWALE.
- CONSTRUCT RETENTION BASIN PER CONTOUR ELEVATIONS SHOWN.

ENGINEER:	JCII GROUP, LLC. 505-264-6918 JCIIGROUP@GMAIL.COM ALBUQUERQUE, NEW MEXICO								
CLIENT:	DAMIAN CHIMENTI INSIGHT CONSTRUCTION 3909 12TH STREET ALBUQUERQUE, NM 87104								
PROJECT:	WITTLER AUTO IMPROVEMENTS GRADING AND DRAINAGE PLAN & HYDROLOGIC ANALYSIS								
PROJECT NO.	2013.102	DRAWN	KC	CHECKED	JC	DATE	08-28-13	SHEET	C1