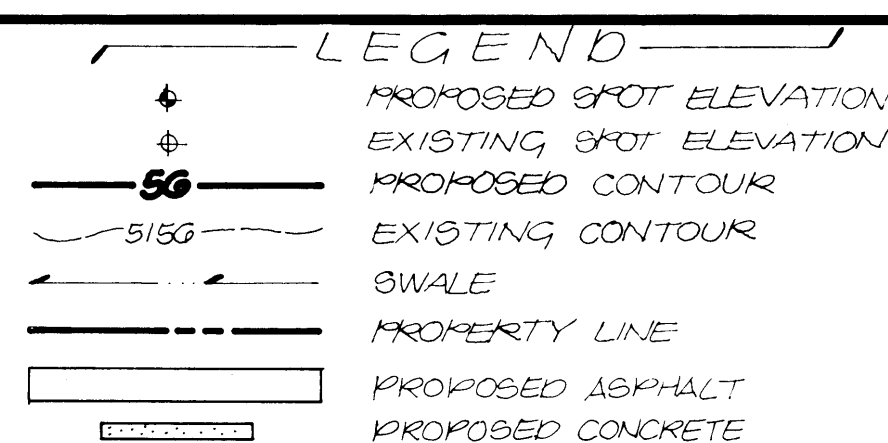


PROJECT BENCHMARK
THE STATION IS ON A 15' WIDE NMSHC BRASS
TAG/STAKE MARKED "STA 115.25" SET IN TOP OF A
CONCRETE PILE, 1' 6" IN THE GROUND TO REACH
FIRM, UNDISTURBED SOIL. THE BENCH IS BLVD.
UNIVERSITY BLVD. ON WEST SIDE OF LONGS BLVD. 0.5 MILES
EAST OF THE INTERSECTION OF THE TWO BLVD'S. APPROXIMATELY 100'
EAST OF THE STATION & THE NORTHEAST CORNER OF THE
BLVD. ELEVATION = 5068.41 FT. (MSLD)

TEMPORARY BENCHMARK
TOP OF CONCRETE SIDEWALK, JUST SOUTH OF EXISTING
CONCRETE BLOCK BUILDING AS SHOWN BELOW.
ELEVATION = 5068.91 FT. (MSLD)

LEGAL DESCRIPTION
PARCEL 1-A, QUALITY PONTIAC INC. LEASE



DRAINAGE PLAN

The following items concerning the Quality Pontiac Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located on the south side of Lomas Boulevard N.E. between the interchange with Interstate 25 and University Boulevard N.E. At present, the entire site is developed as a car dealership. Many of the surrounding sites are developed as car dealerships with complete paving and no apparent detention and/or retention of developed runoff.

As shown by Plate J-15 of the Albuquerque Master Drainage Study, this site does not lie within a designated Flood Hazard Zone. In addition, there is an existing storm drain system within Lomas Boulevard N.E. which collects the runoff conveyed by the street. At present, the site drains from south to north and sheet flows onto Lomas Boulevard N.E. Lomas Boulevard N.E., in front of the site, drains from east to west toward an existing storm inlet which is located at the northwest corner of this site. This existing storm inlet has 20 linear feet of grate and is capable of accepting a great deal of runoff. Because this is an infill site, it is a modification to an existing site, many of the surrounding sites drain to the street. Therefore, the proximity of an existing storm drain system to the site, and the fact that this proposed development will not alter the existing drainage pattern of the site, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing and proposed contours indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) the continuity between existing and proposed grades. As shown by this plan, the proposed improvements consist of the removal of existing asphalt paving and the construction of the building additions and the replacement of the remaining asphalt paving. Also, this plan involves the demolition of an existing building and the removal and replacement of existing concrete pad. This Plan further demonstrates that existing runoff will be routed around these proposed additions with no disruption of the overall drainage pattern of the site. Runoff will neither be increased nor decreased by these improvements and the runoff generated by this site will continue to sheet flow into Lomas Boulevard N.E. where it will be accepted by the existing storm inlet previously mentioned. Roof drip drainage will be discharged from all exposed sides of the additions onto paved surfaces. Lastly, offsite flows are not a concern to this site. The site is protected on the south by an existing retaining wall. The site to the east has topography which parallels this site and it also discharges its runoff to Lomas Boulevard N.E. The site to the west is topographically lower than the site and has topography which is somewhat parallel to the site and thereby does not contribute any runoff. Lomas Boulevard lies significantly lower than the site and has no apparent flooding, hence does not contribute any offsite flows to this site.

The Calculations which appear herein analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The SCS Method was used for the analysis in accordance with the City of Albuquerque Engineering Department Process Manual, Volume II. As shown by these Calculations, the proposed improvements will have no effect on the runoff generated by this site.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate: N/A
Hydrologic Soil Group: N/A
Existing Pervious CN =N/A
Developed Pervious CN =N/A

Time of Concentration/Time to Peak

$$T_C = 0.0078 L^{0.77}/S^{0.385} \text{ (Kirpich Equation)}$$

$$T_D = T_C = 10 \text{ min.}$$

Point Rainfall

$P_6 = 2.22$ in. (DPM Plate 22.2 D-1)

Existing Condition

A_{total} = 217,800 sf = 5.0 Ac
 A_{imp} = 217,800 sf; % impervious = 100 %
 Composite CN = 98 (DPM Plate 22.2 C-3)
 DRO = 2.0 in (DPM Plate 22.2 C-4)
 q_n = 45.4 A/T_p = 22.7 cfs/in runoff

$$\begin{aligned} Q_{100} &= Q_{\text{peak}} = q_p \text{ (DRO)} = 45.4 \text{ cfs} \\ V_{100} &= 3630 \text{ (DRO)} A = 36,300 \text{ cf} \end{aligned}$$

Developed Condition

$A_{total} = 217,800 \text{ sf} = 5.0 \text{ Ac}$
 $A_{imp} = 217,800 \text{ sf}; \% \text{ impervious} = 100 \%$
 Composite CN = 98 (DPM Plate 22.2 C-3)
 $DRO = 2.0 \text{ in (DPM Plate 22.2 C-4)}$
 $q_p = 45.4 \text{ A/T}_p = 22.7 \text{ cfs/in runoff}$

$$\begin{aligned} Q_{100} &= Q_{\text{peak}} = q_p \text{ (DRO)} = 45.4 \text{ cfs} \\ V_{100} &= 3630 \text{ (DRO) A} = 36,300 \text{ cf} \end{aligned}$$

Comparison

$$\begin{aligned}\Delta Q_{100} &= 45.4 - 45.4 = 0 \text{ cfs (no change)} \\ \Delta V_{100} &= 36,300 - 36,300 = 0 \text{ cf (no change)}\end{aligned}$$

CONSTRUCTION NOTES:

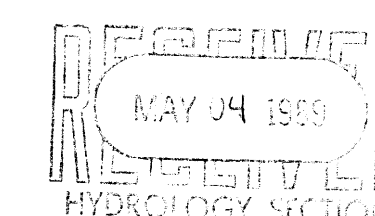
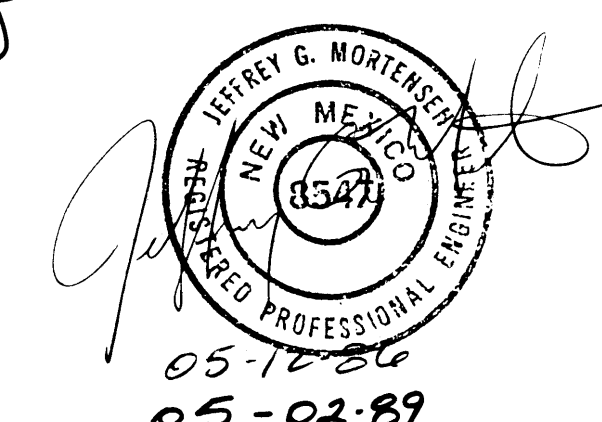
1. THE (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATION SERVICE 766-1234, FOR LOCATION OF ALL UTILITIES.
2. PRIOR TO EXCAVATION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL GAS LINES, CEMENTS, CONCRETE, ETC. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED BEFORE COMMENCEMENT OF EXCAVATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH ALL ORDINANCES OF ALBUQUERQUE STANDARDS AND PROCEDURES.
5. IF ANY UTILITY LINES, PIPELINES OR UNDERGROUND UTILITY LINES ARE SHOWN ON OWNER'S DOCUMENTS, CONTRACTOR SHALL LOCATE AT APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN, IF ANY DISCREPANCY EXISTS BETWEEN THE LOCATION INFORMATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, CONTRACTOR SHALL INFORM THE ENGINEER OR MAY BE OBSOLETE BY THE TIME OF EXCAVATION. THE ENGINEER HAS UNDERTAKEN NO FIELD TRIP OF THE AREA IN LOCATION, DEPTH, SIZE, OR TYPE OF ANY UTILITY LINES, PIPELINES OR UNDERGROUND UTILITY LINES, NAMES OR REPRESENTATION PERTAINING THEREIN, AND CONTRACTOR WILL BE RESPONSIBLE FOR THE THEREFOR. THE CONTRACTOR SHALL INFORM THE ENGINEER THE LOCATION OF ANY UTILITY LINES, PIPELINES OR UNDERGROUND UTILITY LINES IF OR NEAR THE AREA OF THE WORK IN ORDER TO AVOID ANY DAMAGE TO THE SAME. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO IDENTIFY THESE UTILITIES, LINES, OR ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES IN PLANNING AND CONDUCTING EXCAVATION TO OCCUR COMPLIANCE, RULES AND REGULATIONS. IF ANY, PERTAINING TO THE LOCATION OF THESE UTILITIES, LINES, OR

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL FROM THE SITE INTO PUBLIC HIGHWAY-OF-WAY OR QUID STATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERM AT THE PROPERTY LINE AND GETTING THE SOIL TO FEEL IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC HIGHWAY-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE "TOSLOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING

 BUILDING ADDITION

This plan is updated to show a proposed building addition at the southeast corner of the site. The addition requires the removal of existing paving and the construction of a building in its place. No calculations are provided because the proposed addition will not increase the runoff generated by this site; impervious paving will be replaced by impervious roof area. Minor regrading and repaving are required to accomplish this work. Limits of pavement removal and replacement, as well as proposed grades, are shown on this plan.



JEFF MORTENSEN & ASSOCIATES, INC.
811 DALLAS, N.E. □ ALBUQUERQUE, NM 87110
□ ENGINEERS □ TELEPHONE (505) 265-5611 □

NO.	DATE	BY	REVISIONS
1	5/89	JGM	UPDATE FOR BUILDING ADDITION

DESIGNED BY: J. G. M.

DRAWN BY: JMC...

APPROVED: J.G.M.

JOB NO.

60742

DATE _____

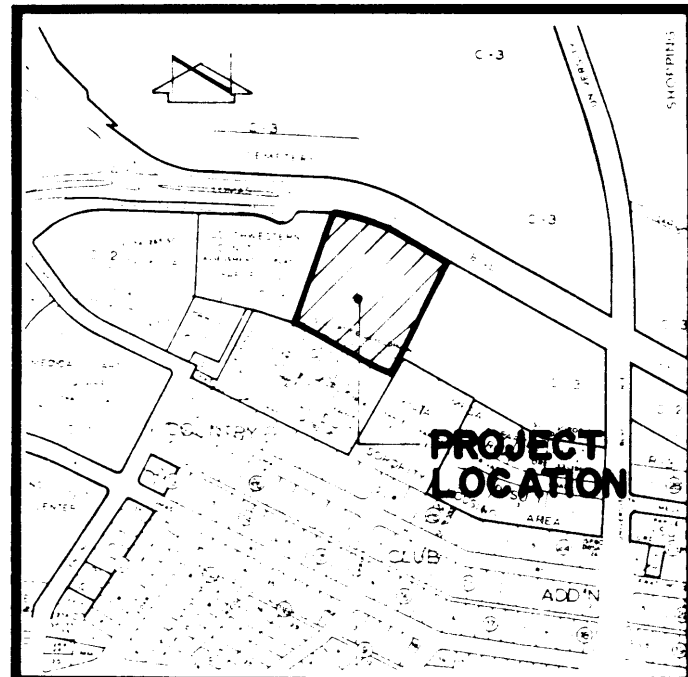
05 - 89

GRADING & DRAINAGE PLAN

QUALITY PONTIAC

FILE NO.	
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SHEET 1 OF 1



PROJECT BENCHMARK
 THE STATION MARK IS A STANDARD 1 1/2" X 1 1/2" BRASS
 1/4" DIA. ROD PLUSH WITH THE GROUND TO REACH
 CENTERLINE OF THE INTERSECTION OF LOMAS BLVD
 & UNIVERSITY BLVD. BUILDING AS SHOWN BELOW.
 ELEVATION = 5093.91 FT. (M.S.L.D.)
TEMPORARY BENCHMARK
 TOP OF CONCRETE SIDEWALK JUST SOUTH OF EXISTING
 CONCRETE BLOCK BUILDING AS SHOWN BELOW.
 ELEVATION = 5093.91 FT. (M.S.L.D.)
LEGAL DESCRIPTION
 PARCEL 1-A, QUALITY PONTIAC INC. LEASE

LEGEND

- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- EXISTING CONTOUR
- SWALE
- PROPERTY LINE
- PROPOSED ASPHALT
- PROPOSED CONCRETE

DRAINAGE PLAN

The following items concerning the Quality Pontiac Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located on the south side of Lomas Boulevard N.E. between the interchange with Interstate 25 and University Boulevard N.E. At present, the entire site is developed as a car dealership. Many of the surrounding sites are developed as car dealerships with complete paving and no apparent detention and/or retention of developed runoff.

As shown by Plate J-15 of the Albuquerque Master Drainage Study, this site does not lie within a designated Flood Hazard Zone. In addition, there is an existing storm drain system within Lomas Boulevard N.E. which collects the runoff conveyed by the street. At present, the site drains from south to north and sheet flows onto Lomas Boulevard N.E. Lomas Boulevard N.E., in front of the site, drains from east to west toward an existing storm inlet which is located at the northwest corner of this site. This existing storm inlet has 20 lineal feet of grate and is capable of accepting a great deal of runoff. Because this is an infill site, it is a modification to an existing site, many of the surrounding sites freely discharge their developed runoff to the street, the proximity of the existing storm drain system to the site, and the fact that this proposed development will not alter the existing drainage pattern of the site, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing and proposed contours indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) the continuity between existing and proposed grades. As shown by this Plan, the proposed improvements consist of the removal of existing asphalt paving and the construction of two building additions and the replacement of the remaining asphalt paving. Also, this plan involves the demolition of an existing building and the replacement of an existing concrete pad. This Plan further demonstrates that existing runoff will be routed around these proposed additions with no disruption of the overall drainage pattern of the site. Runoff will neither be increased nor decreased by these improvements and the runoff generated by this site will continue to sheet flow into Lomas Boulevard N.E. where it will be accepted by the existing storm inlet previously mentioned. Roof drip drainage will be discharged from all exposed sides of the additions onto paved surfaces. Lastly, offsite flows are not a concern to this site. The site is protected on the south by an existing retaining wall. The site to the east has topography which parallels this site and it also discharges its runoff to Lomas Boulevard N.E. The site to the west is topographically lower than the site and has topography which is somewhat parallel to the site and thereby does not contribute any runoff. Lomas Boulevard lies significantly lower than the site and has no apparent flooding, hence does not contribute any offsite flows to this site.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The SCS Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these Calculations, the proposed improvements will have no effect on the runoff generated by this site.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
 Plate: N/A
 Hydrologic Soil Group: N/A
 Existing Pervious CN = N/A
 Developed Pervious CN = N/A

Time of Concentration/Time to Peak

$T_c = 0.0078 L^{0.77} / S^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10 \text{ min.}$

Point Rainfall

$P_6 = 2.22 \text{ in. (DPM Plate 22.2 D-1)}$

Existing Condition

$A_{total} = 217,800 \text{ sf} = 5.0 \text{ Ac}$
 $A_{imp} = 217,800 \text{ sf}; \% \text{ impervious} = 100 \%$
 $\text{Composite CN} = 98 \text{ (DPM Plate 22.2 C-3)}$
 $DRO = 2.0 \text{ in (DPM Plate 22.2 C-4)}$
 $Q_p = 45.4 \text{ A/T}_p = 22.7 \text{ cfs/in runoff}$

$Q_{100} = Q_{peak} = Q_p \text{ (DRO)} = 45.4 \text{ cfs}$
 $V_{100} = 3630' \text{ (DRO)} A = 36,300 \text{ cf}$

Developed Condition

$A_{total} = 217,800 \text{ sf} = 5.0 \text{ Ac}$
 $A_{imp} = 217,800 \text{ sf}; \% \text{ impervious} = 100 \%$
 $\text{Composite CN} = 98 \text{ (DPM Plate 22.2 C-3)}$
 $DRO = 2.0 \text{ in (DPM Plate 22.2 C-4)}$
 $Q_p = 45.4 \text{ A/T}_p = 22.7 \text{ cfs/in runoff}$

$Q_{100} = Q_{peak} = Q_p \text{ (DRO)} = 45.4 \text{ cfs}$
 $V_{100} = 3630' \text{ (DRO)} A = 36,300 \text{ cf}$

Comparison

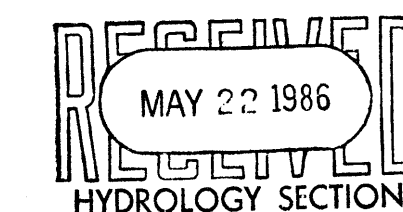
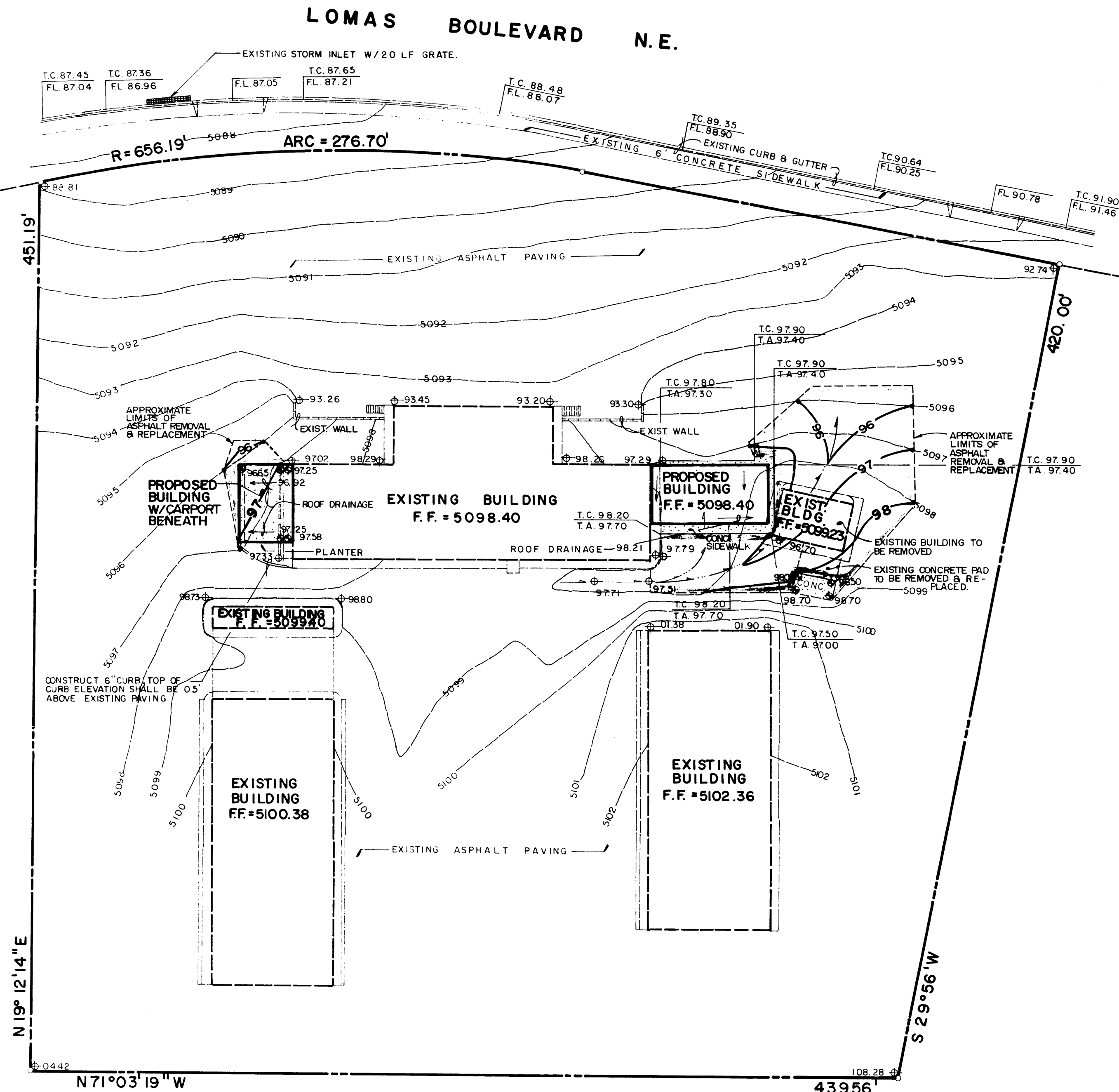
$\Delta Q_{100} = 45.4 - 45.4 = 0 \text{ cfs (no change)}$
 $\Delta V_{100} = 36,300 - 36,300 = 0 \text{ cf (no change)}$

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATOR SERVICE 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
5. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE HORIZONTAL ONLY, AND CONVEY LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH UTILITY LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME THE CONSTRUCTION COMMENCES. THE ENGINEER HAS MADE NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. NOTICE OF REPRESENTATION REMAINS HERETO, AND NOTHING TO REPRESENT OR GUARANTEE THE LOCATION OF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF ANY FIELD EXCAVATION WORK. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PROTECT ANY AND ALL SUCH UTILITY LINES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL INSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERM AT THE PROPERTY LINE, AND SITUING THE SOIL TO KEEP IT FROM ERODING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.



810 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO • 87110
 ENGINEERS

NO.	DATE	BY	REVISIONS

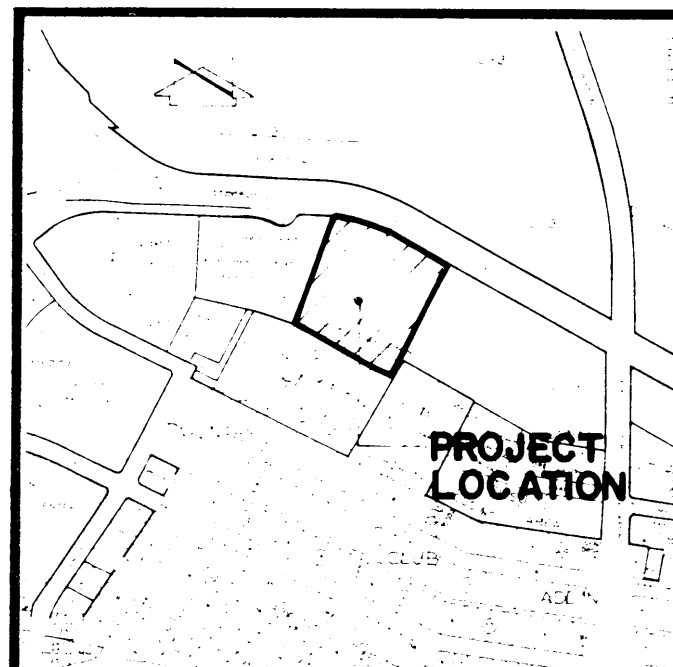
DESIGNED BY: J.G.M.
 DRAWN BY: J.M.C.
 APPROVED: J.G.M.

JOB NO.
6074 I
 DATE
4-86

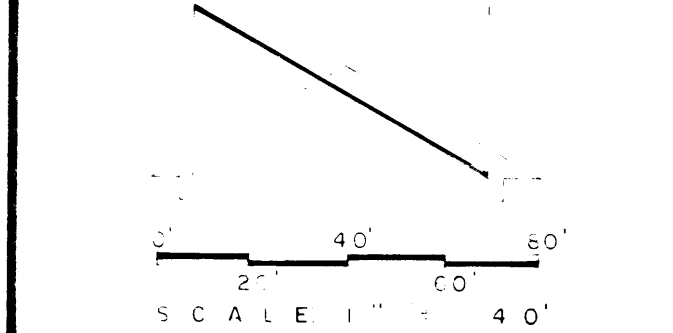
GRADING & DRAINAGE PLAN QUALITY PONTIAC

FILE NO.

SHEET 1 OF 1



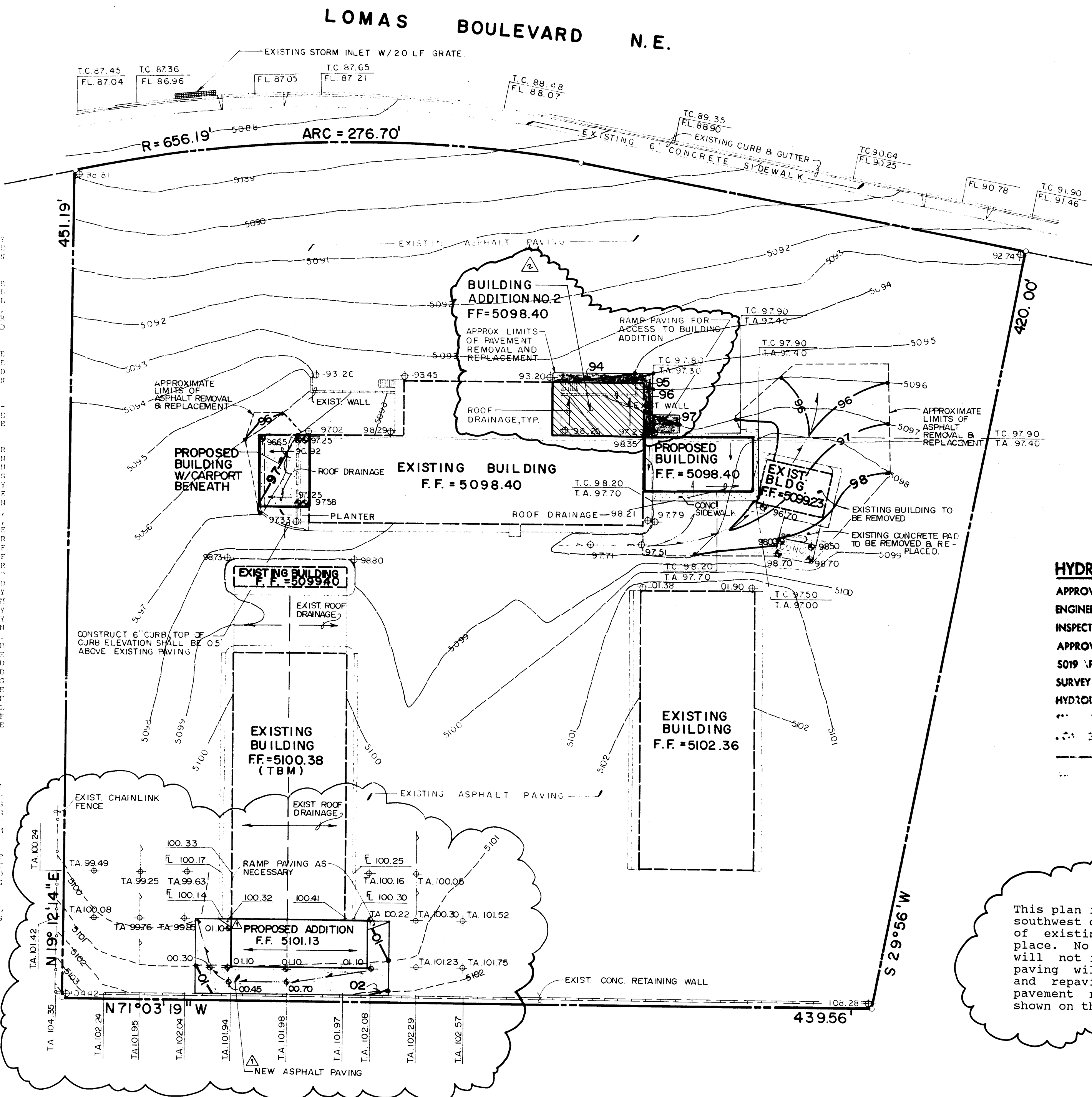
VICINITY MAP
SCALE 1" = 80'



VICINITY MAP
SCALE 1" = 80'

BENCHMARK
A STANDARD 1/4" X 1/4" X 1/4" BRASS
BENCHMARK IS SET IN THE GROUND TO REACH
THE INTERSECTION OF LOMAS BLVD.
AND UNIVERSITY BLVD. THE BENCHMARK IS
LOCATED AT THE NORTHWEST CORNER OF THE
INTERSECTION. ELEVATION = 5033.41 (M.S.L.D.)
TEMPORARY BENCHMARK
TOP OF CONCRETE WALL JUST SOUTH OF EXISTING
CONCRETE WALL. ELEVATION = 5033.37 (M.S.L.D.)
PROPERTY LINE
MAY 1, 1991 QUALITY PONTIAC INC. LEASE

LEGEND
PROPOSED SPOT ELEVATION
EXISTING SPOT ELEVATION
PROPOSED CONTOUR
EXISTING CONTOUR
SWALE
PROPERTY LINE
PROPOSED ASPHALT
PROPOSED CONCRETE



- CONSTRUCTION NOTES**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
 - BEFORE CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY OF ALBUQUERQUE TO RESOLVE WITH A MINIMUM AMOUNT OF DELAY.
 - ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
 - ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
 - IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN TO AN APPROXIMATE HORIZONTAL ONLY, AND SUCH LINES MAY EXIST WHERE SHOWN, IF ANY SUCH LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE CITY OF ALBUQUERQUE, OR MAY BE OBTAINED BY THE TIME THE CONTRACTOR HAS BEEN ADVISED OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, VERIFY AND PROTECT ANY AND ALL EXISTING UTILITY LINES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, RELATING TO THE LOCATION OF THESE LINES AND FACILITIES.

- EROSION CONTROL MEASURES**
- THE CONTRACTOR SHALL INSURE THAT NO EROSION FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ADJACENT PROPERTY CAN BE ACHIEVED BY CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL PROPERLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
 - THE CONTRACTOR SHALL SECURE "TOPSOIL, DISTURBED EARTH" PRIOR TO BEGINNING CONSTRUCTION.

JMA
JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, N.M. 87109
ENGINEERS © (505) 345-4250

NO.	DATE	BY	REVISIONS
1	5/89	JGM	UPDATE FOR BUILDING ADDITION
2	7/90	JGM	UPDATE FOR BUILDING ADDITION NO. 2

DESIGNED BY: J.G.M.
DRAWN BY: J.M.C.
APPROVED: J.G.M.

JOB NO.
60742
DATE
05-89

DRAINAGE PLAN
The following items concerning the Quality Pontiac Drainage Plan are contained hereon:

- Vicinity Map
- Grading Plan
- Calculations

As shown by the Vicinity Map, the site is located on the south side of Lomas Boulevard N.E. between the interchange with Interstate 25 and University Boulevard N.E. At present, the entire site is developed as a car dealership. Many of the surrounding sites are developed as car dealerships with complete paving and no apparent detention and/or retention of developed runoff.

As shown by Plate J-15 of the Albuquerque Master Drainage Study, this site does not lie within a designated Flood Hazard Zone. In addition, there is an existing storm drain system within Lomas Boulevard N.E. which collects the runoff conveyed by the street. At present, the site drains from south to north and sheet flows onto Lomas Boulevard N.E. Lomas Boulevard N.E., in front of the site, drains from east to west toward an existing storm inlet which is located at the northwest corner of this site. This existing storm inlet has 20 lineal feet of grate and is capable of accepting a great deal of runoff. Because this is an infill site, it is a modification to an existing site, many of the surrounding sites freely discharge their developed runoff to the street, the proximity of the existing storm drain system to the site, and the fact that this proposed development will not alter the existing drainage pattern of the site, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing and proposed contours indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) the continuity between existing and proposed grades. As shown by this Plan, the proposed improvements consist of the removal of existing asphalt paving and the construction of two building additions and the replacement of the remaining asphalt paving. Also, this plan involves the demolition of an existing building and the removal and replacement of an existing concrete pad. This Plan further demonstrates that existing runoff will be routed around these proposed additions with no disruption of the overall drainage pattern of the site. Runoff will neither be increased nor decreased by these improvements and the runoff generated by this site will continue to sheet flow into Lomas Boulevard N.E. where it will be accepted by the existing storm inlet previously mentioned. Roof drip drainage will be discharged from all exposed sides of the additions onto paved surfaces. Lastly, offsite flows are not a concern to this site. The site is protected on the south by an existing retaining wall. The site to the east has topography which parallels this site and it also discharges its runoff to Lomas Boulevard N.E. The site to the west is topographically lower than the site and has topography which is somewhat parallel to the site and thereby does not contribute any runoff. Lomas Boulevard lies significantly lower than the site and has no apparent flooding, hence does not contribute any offsite flows to this site.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The SCS Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these Calculations, the proposed improvements will have no effect on the runoff generated by this site.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate: N/A
Hydrologic Soil Group: N/A
Existing Pervious CN = N/A
Developed Pervious CN = N/A

Time of Concentration/Time to Peak

$T_c = 0.0078 L^{0.77} / S^{0.385}$ (Kirpich Equation)
 $T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.22$ in. (DPM Plate 22.2 D-1)

Existing Condition

Atotal = 217,800 sf = 5.0 Ac
Aimp = 217,800 sf; % impervious = 100 %
Composite CN = 98 (DPM Plate 22.2 C-3)
DRO = 2.0 in (DPM Plate 22.2 C-4)
 $Q_p = 45.4 A/T_p = 22.7$ cfs/in runoff

$Q_{100} = Q_{peak} = Q_p$ (DRO) = 45.4 cfs
 $V_{100} = 3630$ (DRO) A = 36,300 cf

Developed Condition

Atotal = 217,800 sf = 5.0 Ac
Aimp = 217,800 sf; % impervious = 100 %
Composite CN = 98 (DPM Plate 22.2 C-3)
DRO = 2.0 in (DPM Plate 22.2 C-4)
 $Q_p = 45.4 A/T_p = 22.7$ cfs/in runoff

$Q_{100} = Q_{peak} = Q_p$ (DRO) = 45.4 cfs
 $V_{100} = 3630$ (DRO) A = 36,300 cf

Comparison

$\Delta Q_{100} = 45.4 - 45.4 = 0$ cfs (no change)
 $\Delta V_{100} = 36,300 - 36,300 = 0$ cf (no change)

HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT
ENGINEER *B. J. [Signature]* DATE 9/19/90
INSPECTION REQUESTED DATE _____
APPROVAL DATE _____ DISAPPROVED _____
SURVEY DATE _____
HYDROLOGY BOOK NO./PAGE NO. _____
DATE _____
BY _____

BUILDING ADDITION
This plan is updated to show a proposed building addition at the southwest corner of the site. The addition requires the removal of existing paving and the construction of a building in its place. No calculations are provided because the proposed addition will not increase the runoff generated by this site; impervious paving will be replaced by impervious roof area. Minor regrading and repaving are required to accomplish this work. Limits of pavement removal and replacement, as well as proposed grades, are shown on this plan.

BUILDING ADDITION NO. 2
This plan is updated to show a proposed building addition at the northeast corner of the showroom. The addition requires the removal of existing paving and the construction of a building addition in its place. No calculations are provided because the proposed addition will not increase the runoff generated by this site; impervious paving will be replaced by impervious roof area. Minor regrading and repaving are required to accomplish this work. Limits of pavement removal and replacement, as well as proposed grades, are shown on this plan.

JEFF MORTENSEN & ASSOCIATES, INC.
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
05-12-86
05-02-89
09-11-90

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GRADING & DRAINAGE PLAN
QUALITY PONTIAC

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SHEET 1 OF 1