

DRAINAGE AND GRADING PLAN FOR LES FILE DRYWALL 116 INDUSTRIAL AVENUE NE TRACTS B1B, B1C & B1D1 W. DALE STALDER'S INDUSTRIAL SUBD. BERNALILLO COUNTY, NEW MEXICO

JULY 1999

DRAINAGE CALCULATIONS

DRAINAGE PLAN
THE FOLLOWING ITEMS CONCERNING 116 INDUSTRIAL AVENUE NE, TRACTS B1B, B1C, AND B1D1 IN W. DALE STALDER'S INDUSTRIAL SUBDIVISION, BERNALILLO COUNTY, GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

- VICINITY MAP
- GRADING AND DRAINAGE PLAN
- FLOODMAP
- DRAINAGE CALCULATIONS

EXISTING CONDITIONS
AS SHOWN BY THE VICINITY MAP (G-15), THE SITE CONTAINS APPROXIMATELY 1.15 ACRES AND IS LOCATED AT 116 INDUSTRIAL AVENUE NE, JUST WEST OF EDITH STREET, AND SOUTH OF GREGG ROAD. THE SITE CURRENTLY IS FULLY DEVELOPED. THE SITE TOPOGRAPHY SLOPES FROM A SOUTH TO NORTHWEST DIRECTION, FROM THE REAR OF THE LOT TO THE FRONT. THE SITE IS COVERED WITH 0.97 ACRES OF IMPERVIOUS AREA AND 0.18 ACRES OF PERVIOUS AREA AT THE REAR OF THE BUILDINGS. THERE ARE ALSO EXISTING RAILROAD TRACKS AT THIS PERVIOUS LOCATION.

RESEARCH AT AMAFCA AND BERNALILLO COUNTY HAS RESULTED IN NO MASTER DRAINAGE PLAN FOR THE W. DALE STALDER'S INDUSTRIAL SUBDIVISION. BASED ON A FIELD INVESTIGATION IT APPEARS THAT ALL FLOW FROM THIS SUBDIVISION DRAINS TO AN EXISTING INLET ON INDUSTRIAL AVENUE NE. THIS INLET IS APPROXIMATELY 210 FEET WEST OF THIS SITE AS SHOWN ON THE PLAN. THIS INLET IS 52" X52" AND HAS A 18 INCH ROUND RCP PIPE, IT DISCHARGES TO THE WEST UNDER AN EXISTING BUILDING THAT SITS IN LOT A2A OF THE SAME SUBDIVISION. THERE IS SOME PONDING AREA BETWEEN THE WEST SIDE OF THIS BUILDING AND THE A.T. & S.F. RAILROAD, WHERE THIS 18 INCH DISCHARGES

ACCORDING TO THE FLOOD INSURANCE RATE MAP, PANEL 35001C0332 D, DATED SEPTEMBER 20, 1996, THIS SITE AND SOME OF THE EXISTING BUILDINGS ARE IN A DESIGNATED FLOODPLAIN, THE FLOODZONE IS DESIGNATED AH WITH AN ELEVATION OF 4972.

PROPOSED CONDITIONS
AS SHOWN BY THE PLAN, THE PROJECT CONSISTS OF UPGRADING EXISTING WAREHOUSES, AND RENOVATING A OFFICE BUILDING. THE PLAN SHOWS THE PROPOSED ELEVATIONS REQUIRED TO PROPERLY GRADE THE NEW PAVING IMPROVEMENTS THAT WILL REPLACE THE EXISTING PAVEMENT. ALL DRIVEWAYS AND PARKING AREAS WILL BE PAVED, LANDSCAPING IS TO BE PROVIDED PER COUNTY ZONING REQUIREMENTS.

THE DRAINAGE PATTERN FOR THE PROPOSED CONDITIONS WILL BE THE SAME AS EXISTING CONDITIONS, WHICH IS TO DRAIN ALL FLOWS INTO INDUSTRIAL AVENUE NE, THIS WILL THAN FLOW WEST ALONG AN EXISTING ASPHALT ROAD SWALE TO THE EXISTING INLET SHOWN ON THE PLAN.

THE CALCULATIONS WHICH APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6 HOUR RAINFALL RUNOFF FOR PEAK FLOWS AND STORM DURATION FOR VOLUME REQUIREMENTS. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS AS SET FORTH IN THE REVISION OF SECTION 22.7 HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993. THIS D.P.M. PROCEDURE IS USED FOR ANALYZING ONSITE FLOWS.

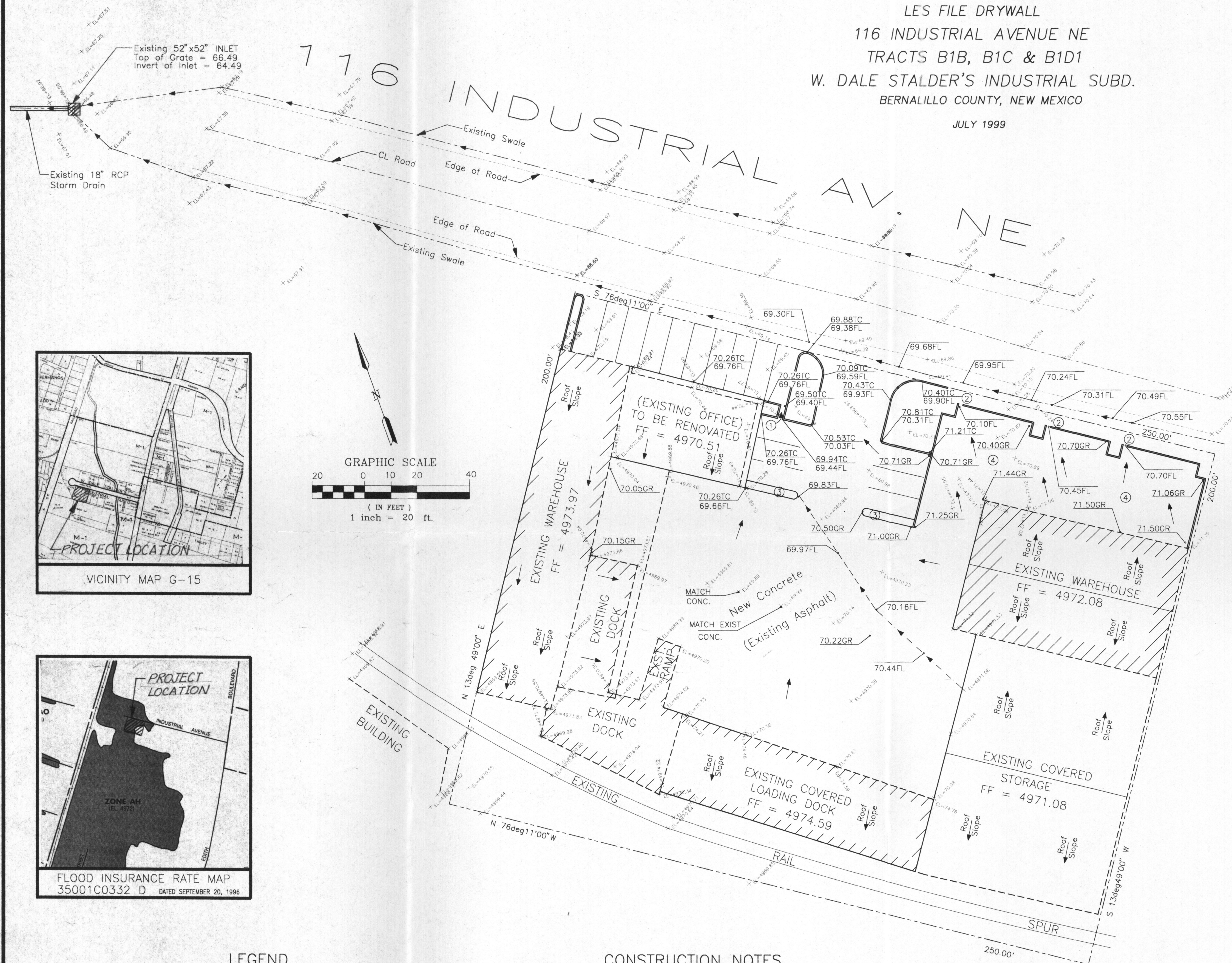
DOWNSTREAM CAPACITY
MOST OF THIS AREA INCLUDING THIS SITE ARE WITHIN A 100-YEAR FLOODPLAIN, THE NORTH/SOUTH MAIN RAILROAD BERM MORE THAN LIKELY CREATES A FLOODPLAIN IN THIS AREA. BY CREATING A PONDING AREA THIS WOULD NOT ALLEVATE OR REDUCE THE EXISTING FLOODPLAIN, THEREFORE IT IS PROPOSED THAT THIS DEVELOPMENT WOULD NOT FURTHER AGGRAVATE EXISTING CONDITIONS, SINCE THE IMPERVIOUS AREA WILL NOT CHANGE WITH THIS DEVELOPMENT.

EROSION CONTROL
TEMPORARY EROSION CONTROL WILL BE REQUIRED DURING THE CONSTRUCTION PHASE TO PROTECT DOWNSTREAM PROPERTY AND IMPROVEMENTS FROM SEDIMENT AND UNCONTROLLED RUNOFF. THE CONTRACTOR SHALL INCLUDE TEMPORARY EARTH BERMING ALONG THE WEST PROJECT BOUNDARIES AND SOUTH BOUNDARY TO HOLD RUNOFF DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY MAINTAIN THESE FACILITIES DURING THE CONSTRUCTION PHASE OF THE PROJECT.

OFFSITE FLOWS
SINCE MOST OF THIS SITE IS IN THE DESIGNATED 100-YEAR FLOODPLAIN, OFFSITE FLOWS DO ENTER THE PROPERTY DURING A 100-YEAR EVENT.

- DRAINAGE CALCULATIONS**
- PRECIPITATION ZONE = 2
 - DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
6-HOUR = 2.35 INCHES
10 DAY = 3.95 INCHES
 - PEAK DISCHARGE (CFS/ACRE) FIR 100-YEAR, ZONE 2, TABLE A-9:
Q = 1.56 CFS/ACRE SOIL UNCOMPACTED "A"
Q = 2.28 CFS/ACRE LANDSCAPED "B"
Q = 3.14 CFS/AC COMPACTED SOIL "C"
Q = 4.70 CFS/ACRE IMPERVIOUS AREA "D"
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES
 - EXCESS PRECIPITATION, E (INCHES), 6 HOUR STORM, ZONE 2, TABLE A-8:
E = 0.53 INCHES SOIL UNCOMPACTED "A"
E = 0.78 INCHES LANDSCAPED "B"
E = 1.13 INCHES COMPACTED SOIL "C"
E = 2.12 INCHES IMPERVIOUS AREA "D"
 - EXISTING AND PROPOSED CONDITIONS ONSITE, TREATMENT AREA(ACRES)
A 0
B 0
C 0.18(RAILROAD SPUR AREA)
D 0.97(INCLUDES EXISTING BLDG & PAVING)

TYPE "C" SOILS SINCE RAILROAD PORTION HAS BEEN COMPACTED BY HUMAN ACTIVITY
 $Q(EXISTING \& PROPOSED) = (3.14 \times 0.18) + (4.70 \times 0.97) = 5.10 \text{ CFS EXISTING AND PROPOSED ONSITE FLOW}$
 $V(EXISTING-6HR) = ((1.13 \times 0.18) + (2.12 \times 0.97)) \times 12 \times 43,560 = 8,203 \text{ CF}$
 $= 0.19 \text{ AC}-\text{FT EXISTING AND PROPOSED VOLUME}$



LEGEND

- 97.73TC PROPOSED TOP OF CURB
- 97.73FL PROPOSED FLOWLINE
- 5098- EXISTING CONTOUR ELEVATION
- ← DIRECTION OF FLOW

- 25' PROPOSED CONTOUR ELEVATION
- EXISTING GRADE
- EXISTING BUILDINGS AND DOCKS ABOVE 100 YEAR FLOODPLAIN = 4972

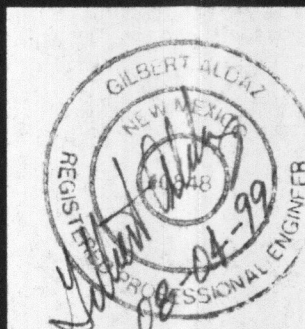
CONSTRUCTION NOTES

- PROVIDE 1'-6" WIDE SIDEWALK CULVERT PER CITY OF ALBUQ. DWG 2236
- PROVIDE 16" WIDE X 8" HIGH OPENING IN WALL
- PROVIDE STRIPING
- EXISTING ASPHALT TO BE REMOVED AND REPLACED WITH NEW ASPHALT

UTILITY PRECAUTIONS

THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, 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.

FILE 990301



**DRAINAGE & GRADING PLAN
FOR
LES FILE DRYWALL
BERNALILLO COUNTY, NEW MEXICO**

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ALBUQUERQUE, NEW MEXICO 87112 PH: (505)237-1456

DATE/REVISIONS:

SHEET NUMBER:

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