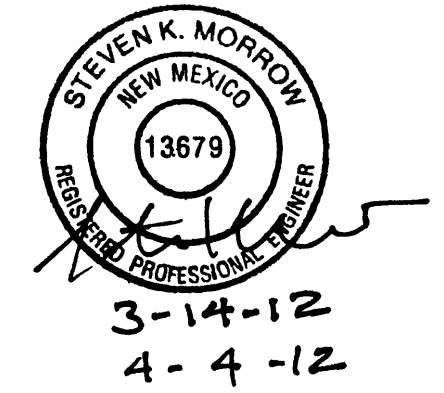


ENGINEER'S CERTIFICATION (HYDROLOGY) FOR PERMANENT CERTIFICATE OF OCCUPANCY
I, Steven K. Morrow, NMPE 13679, of the firm Brasher and Lorenz, Inc., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 1-17-12. The record information edited onto the original design document has been obtained by me or under my direct supervision as supplemental data to the original topographic survey prepared by Lenore Armijo NMPS# 15511 of the firm Brasher and Lorenz, Inc. and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy.

The following deviations from the plan should be noted:

1. The swale on the south side of the building was not constructed. Instead, a 30-inch concrete channel was constructed adjacent to the building (see attached photos).
2. As-built elevations indicated that runoff may drain directly to the street instead of to the private on-site drop inlet (as called for in the plan). **CONTRACTOR CONSTRUCTED EARTHEN BERM TO CORRECT THIS. SEE NOTE #12.**
3. Gravel areas are now a graded dirt surface.

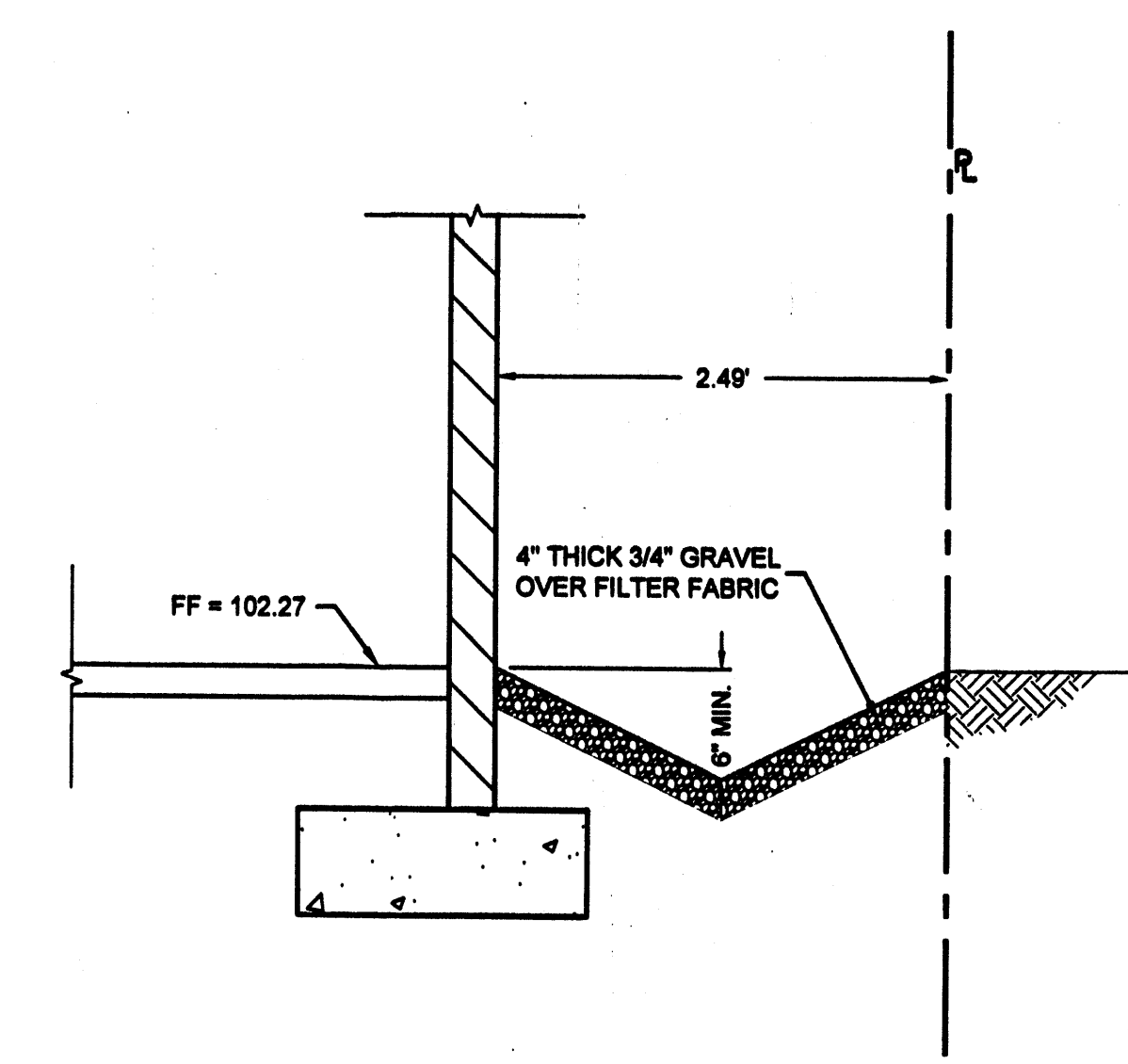
The record information presented hereon is not necessarily complete and is intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.



BUILDING SWALE SECTION

NTS DELETED. REPLACED BY 30-INCH CONCRETE CHANNEL (SEE ATTACHED PHOTOS)

EXISTING BUILDING

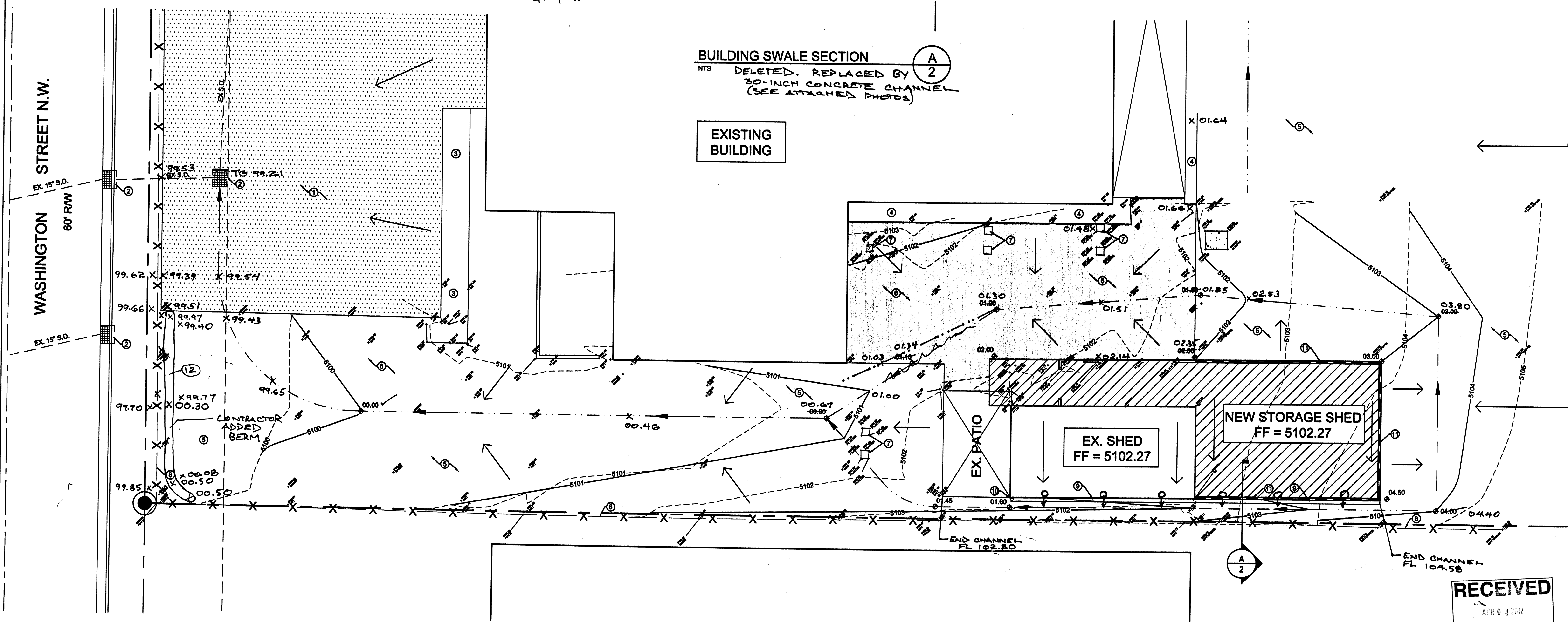


KEYED NOTES

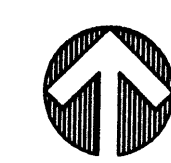
1. EXISTING ASPHALT PAVING.
2. EXISTING DROP INLET.
3. EXISTING CONCRETE SIDEWALK.
4. EXISTING CONCRETE SLAB.
5. ~~EXISTING GRAVEL YARD~~ GRADED DIRT SURFACE
6. REMOVE AND DISPOSE EXISTING ASPHALT. RE-PAVE TO LIMITS SHOWN.
7. REMOVE AND DISPOSE EXISTING CONCRETE FOUNDATIONS.
8. EXISTING CHAIN LINK FENCE TO BE REMAIN.
9. ~~INSTALL GUTTER ALONG ENTIRE SOUTH SIDE OF BUILDING~~ DELETED
10. ~~DOWNSPOUT~~ DELETED
11. STEMWALL.
12. EARTHEN BEAM

LEGEND

ITEM	EXISTING	PROPOSED
CURB AND GUTTER		
LIGHT POLE	☆	
POWER POLE WITH ANCHOR	⊕	
TOP OF ASPHALT ELEV.	X 46.50	⊕ 46.50
CONTOUR W/ ELEVATION	--- 4992 ---	--- 92 ---
ASPHALT PAVING	[Pattern]	[Pattern]
DIRECTION OF FLOW	→	→
CONCRETE		[Pattern]
ROOF DRAIN	⊙	

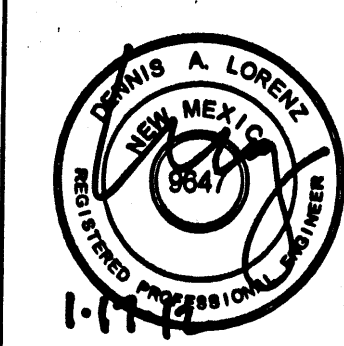


RECEIVED
APR 0 4 2012
HYDROLOGY
SECTION



GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'

8324 WASHINGTON STREET N.W.
DETAILED GRADING AND DRAINAGE PLAN



BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro NE Building 1 Suite 1200
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-8188

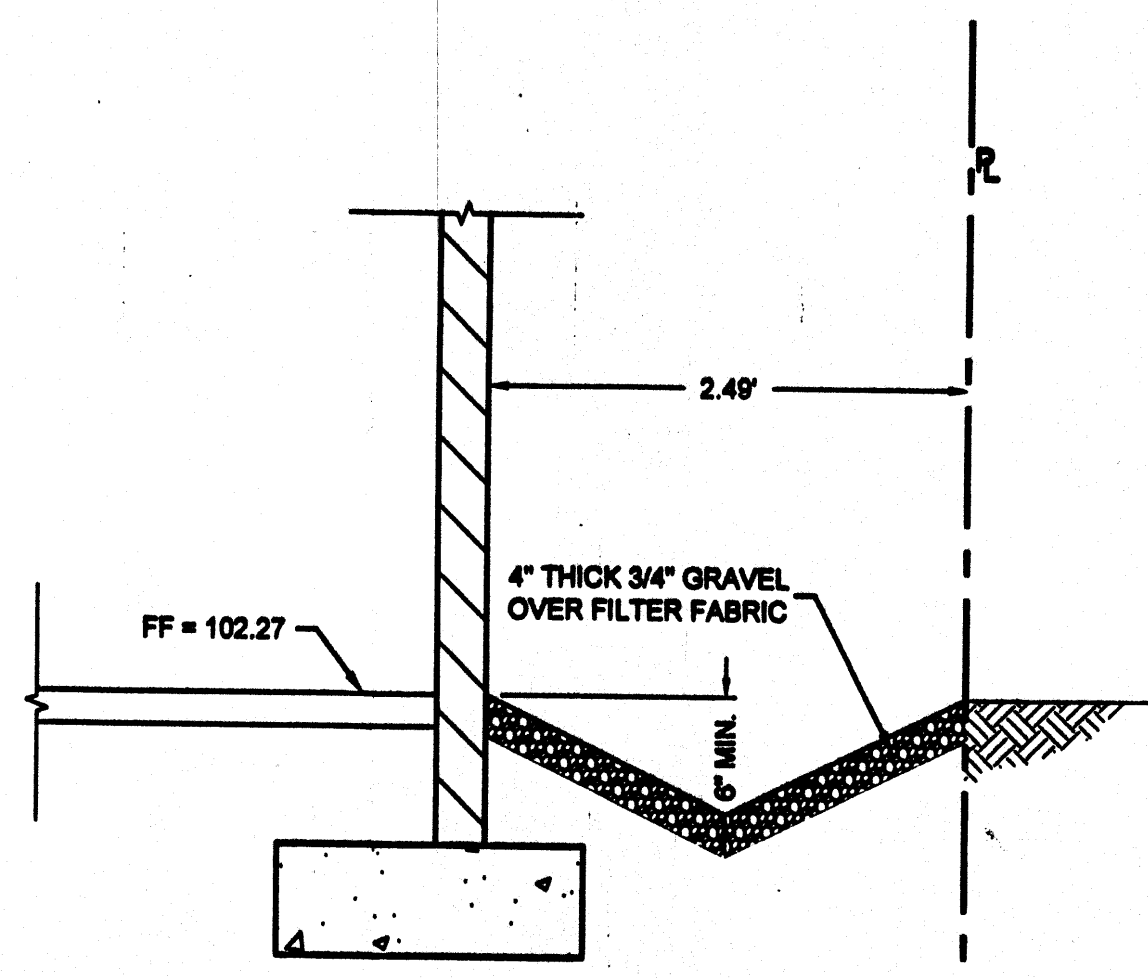
DRAWN BY: M.V.H. DATE: 1/17/12
CHECKED BY: D.A.L.
12502 G & D SHEET 2 OF 2

ENGINEER'S CERTIFICATION (HYDROLOGY) FOR PERMANENT CERTIFICATE OF OCCUPANCY
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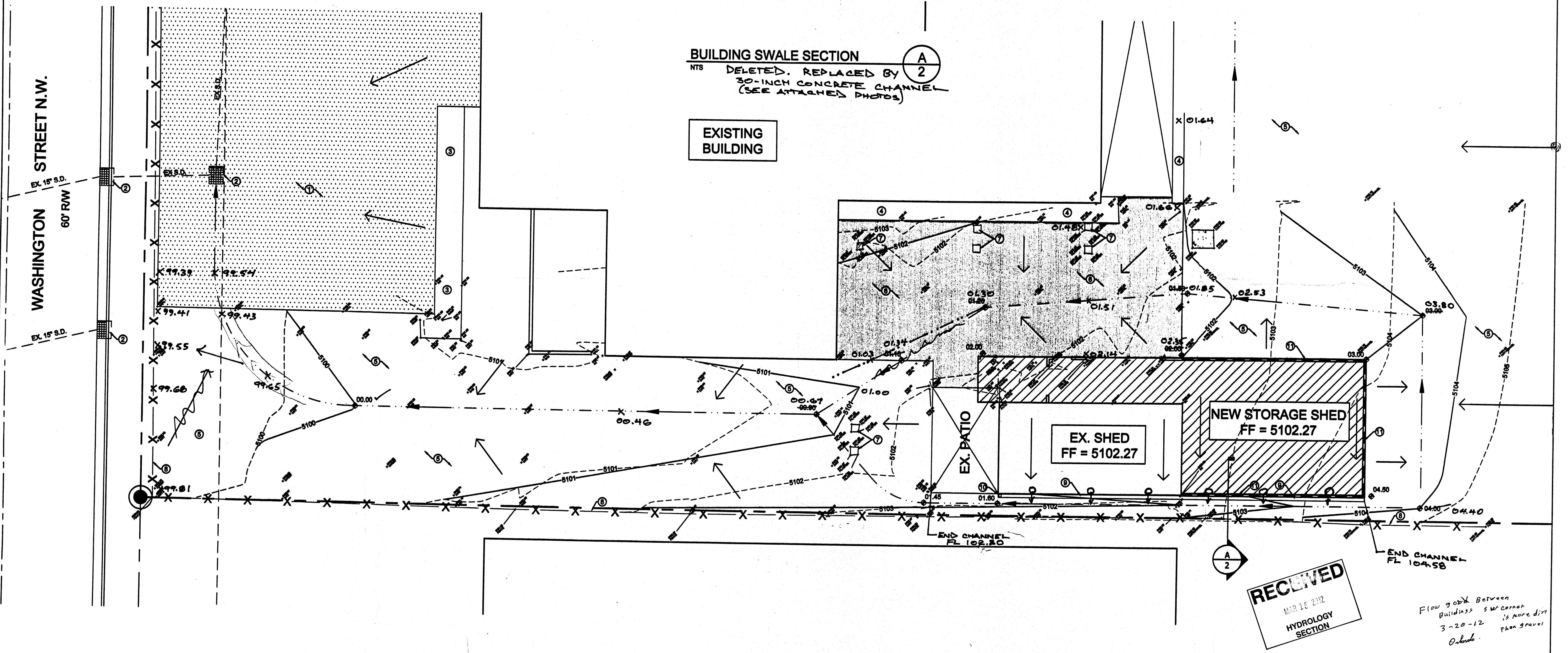


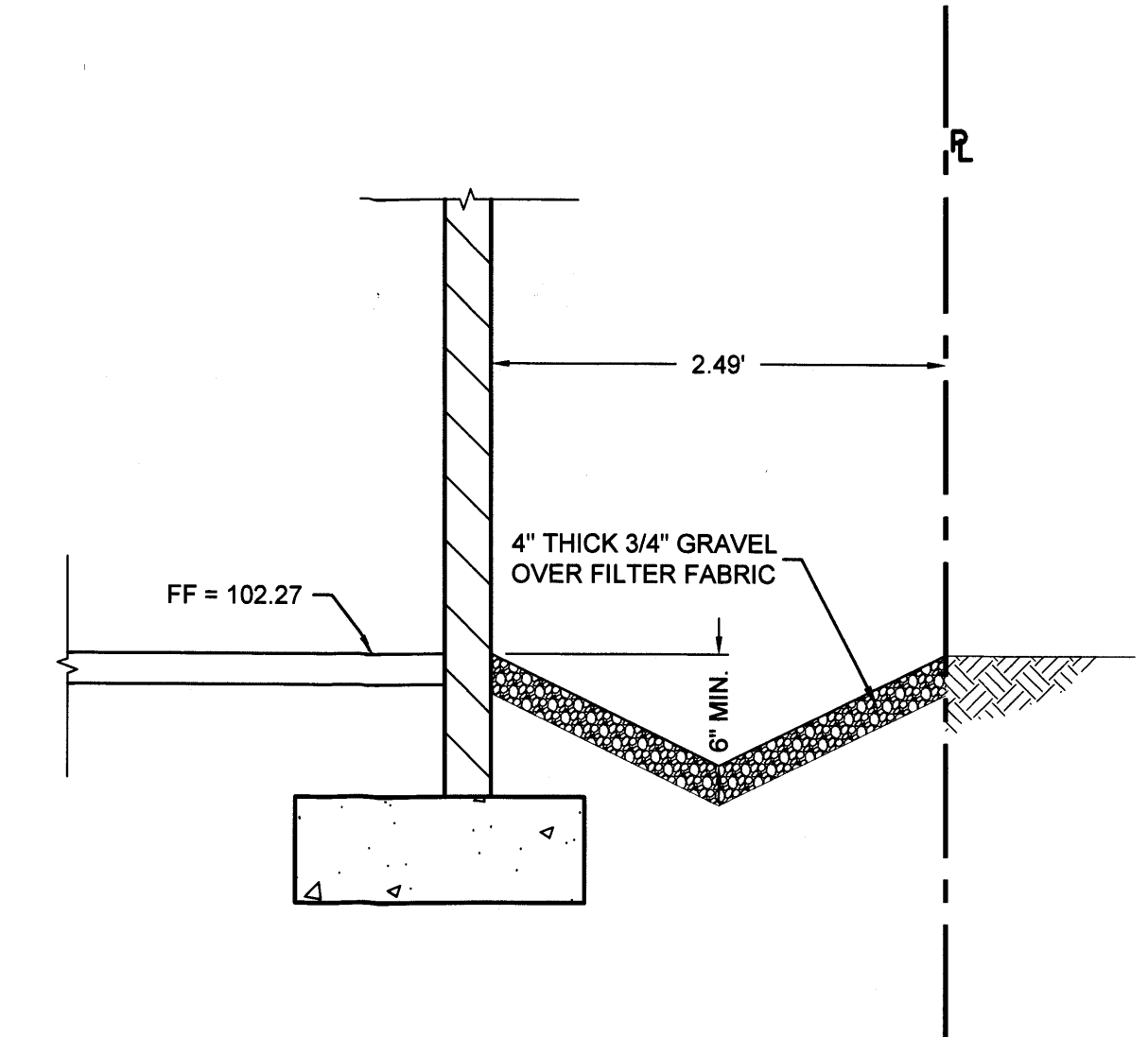
BUILDING SWALE SECTION
NTS DELETED. REPLACED BY 30-INCH CONCRETE CHANNEL (SEE ATTACHED PHOTOS)

EXISTING BUILDING

- KEYED NOTES**
1. EXISTING ASPHALT PAVING.
 2. EXISTING DROP INLET.
 3. EXISTING CONCRETE SIDEWALK.
 4. EXISTING CONCRETE SLAB.
 5. EXISTING GRAVEL-YARD **GRADED DIRT SURFACE**
 6. REMOVE AND DISPOSE EXISTING ASPHALT. RE-PAVE TO LIMITS SHOWN.
 7. REMOVE AND DISPOSE EXISTING CONCRETE FOUNDATIONS.
 8. EXISTING CHAIN LINK FENCE TO BE REMAIN.
 9. **INSTALL GUTTER ALONG ENTIRE SOUTH SIDE OF BUILDING DELETED**
 10. **DOWNSPOUT DELETED**
 11. STEM WALL.

LEGEND		
ITEM	EXISTING	PROPOSED
CURB AND GUTTER		
LIGHT POLE	☆	
POWER POLE WITH ANCHOR	⊕	
TOP OF ASPHALT ELEV.	X 46.50	⊕ 46.50
CONTOUR W/ ELEVATION	---4992---	---92---
ASPHALT PAVING	[Pattern]	[Pattern]
DIRECTION OF FLOW	→	→
CONCRETE		[Pattern]
ROOF DRAIN	⊕	





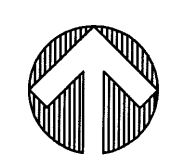
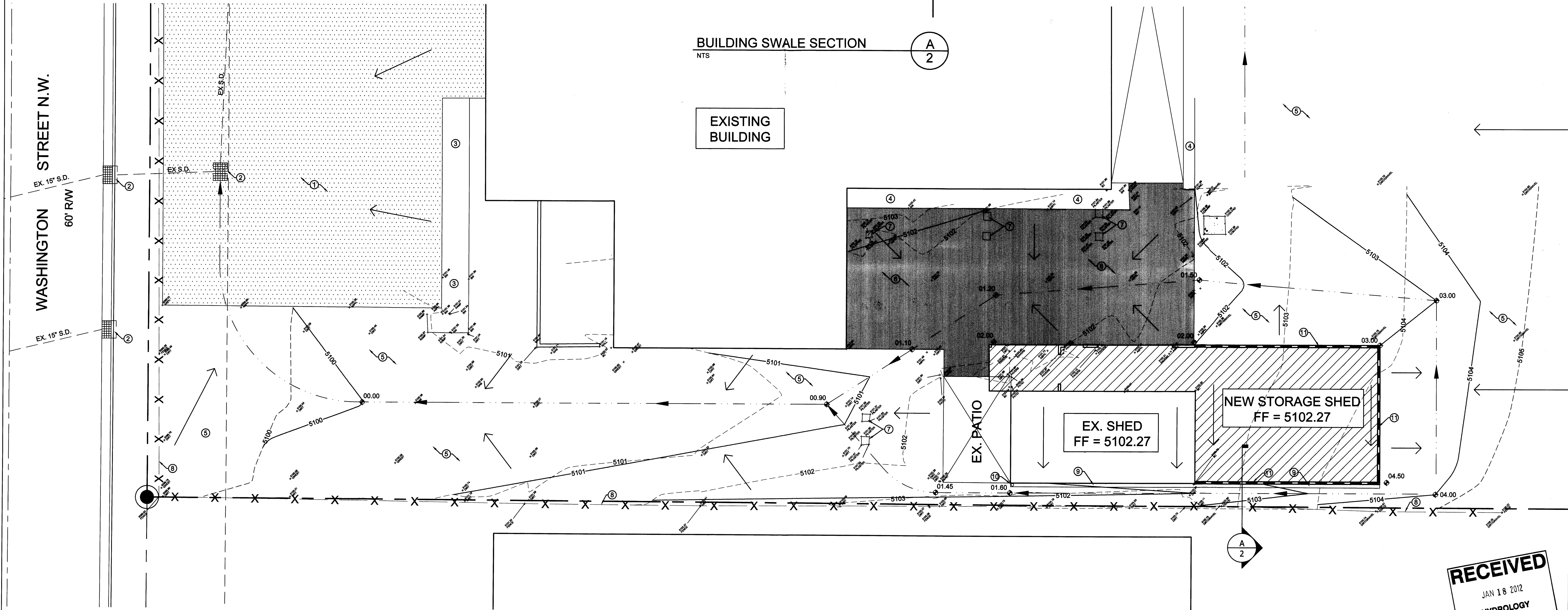
- KEYED NOTES**
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 2. EXISTING DROP INLET.
 3. EXISTING CONCRETE SIDEWALK.
 4. EXISTING CONCRETE SLAB.
 5. EXISTING GRAVEL YARD.
 6. REMOVE AND DISPOSE EXISTING ASPHALT. RE-PAVE TO LIMITS SHOWN.
 7. REMOVE AND DISPOSE EXISTING CONCRETE FOUNDATIONS.
 8. EXISTING CHAIN LINK FENCE TO BE REMAIN.
 9. INSTALL GUTTER ALONG ENTIRE SOUTH SIDE OF BUILDING
 10. DOWNSPOUT.
 11. STEMWALL.

LEGEND		
ITEM	EXISTING	PROPOSED
CURB AND GUTTER		
LIGHT POLE		
POWER POLE WITH ANCHOR		
TOP OF ASPHALT ELEV.	\times 46.50	\blacklozenge 46.50
CONTOUR W/ ELEVATION		
ASPHALT PAVING		
DIRECTION OF FLOW		
CONCRETE		

BUILDING SWALE SECTION

A
2

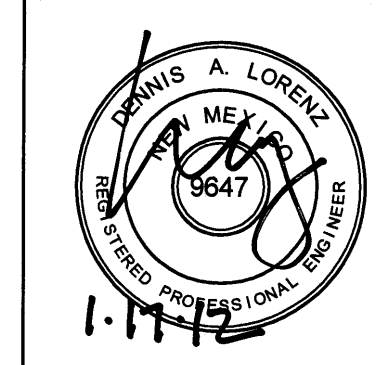
EXISTING BUILDING



GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'

RECEIVED
JAN 18 2012
HYDROLOGY SECTION

8324 WASHINGTON STREET N.W.
DETAILED GRADING AND DRAINAGE PLAN



BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro NE Building 1 Suite 1200
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

DRAWN BY: M.V.H.	DATE: 1/17/12
CHECKED BY: D.A.L.	
12502 G & D	SHEET 2 OF 2

GRADING AND DRAINAGE PLAN

SCOPE

Pursuant to the City of Albuquerque Drainage Ordinance and the Development Process Manual, Volume 2, Section 22.2, the Grading and Drainage Plan shown hereon outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of the construction of a 1,500 square foot building addition, located at 8324 Washington Street NE, Albuquerque, New Mexico.

This plan is an update to the Updated Grading and Drainage Plan for Pace Iron Works Assembly Plant, prepared by Bo Johnson, PE, dated 12-4-1984.

EXISTING CONDITIONS

The project is presently fully developed. Existing site improvements consist of an existing 14,500 square foot building, storage sheds and associated site improvements. The site is bounded on the west by Washington Street NE, and on the north, south and east by developed light manufacturing properties.

As shown by the attached FIRM Panel, the site lies within the 500-year Zone "X" Flood Zone. The Domingo Baca Channel is located approximately 500 feet south of the site.

PROPOSED IMPROVEMENTS

As shown by the Plan, the project consists of the construction of a 1,500 square foot addition to an existing shed, located on the south side of the project site, with associated grading, drainage, paving, utility and landscaping improvements. The site will be re-graded around the building addition to promote positive drainage around the buildings. The entire south side of the existing shed and addition will be guttered with a downspout to be located at the southwest corner of the building. The existing asphalt mat located between the buildings will be re-contoured and repaved to improve drainage. All site runoff will be routed by surface swales to the west parking lot where 2 existing drop inlets collect runoff, discharging to an existing drop inlet and public storm drain located in Washington Street. The public storm drain outfalls at the Domingo Baca Channel.

As shown by the AHYMO calculations, the impact of this project increases the developed peak runoff by approximately 0.06 cfs. Also, the 1984 Plan of record estimated a developed peak flow rate of 9.1 cfs, compared to a peak flow rate of 8.21 cfs estimated by this plan. Since this is infill development, and given the site's proximity to the Domingo Baca Channel, free discharge of developed runoff is warranted. Since construction will disturb an area of less than 1.0 acres, a Storm Water Pollution Prevention Plan should not be required.

CALCULATIONS

The calculations shown hereon define the 100-year/6 hour design storm falling within the project area under existing and proposed conditions. The hydrology is per "Section 22.2, Part A, Development Process Manual, Vol 2", dated June 1997.

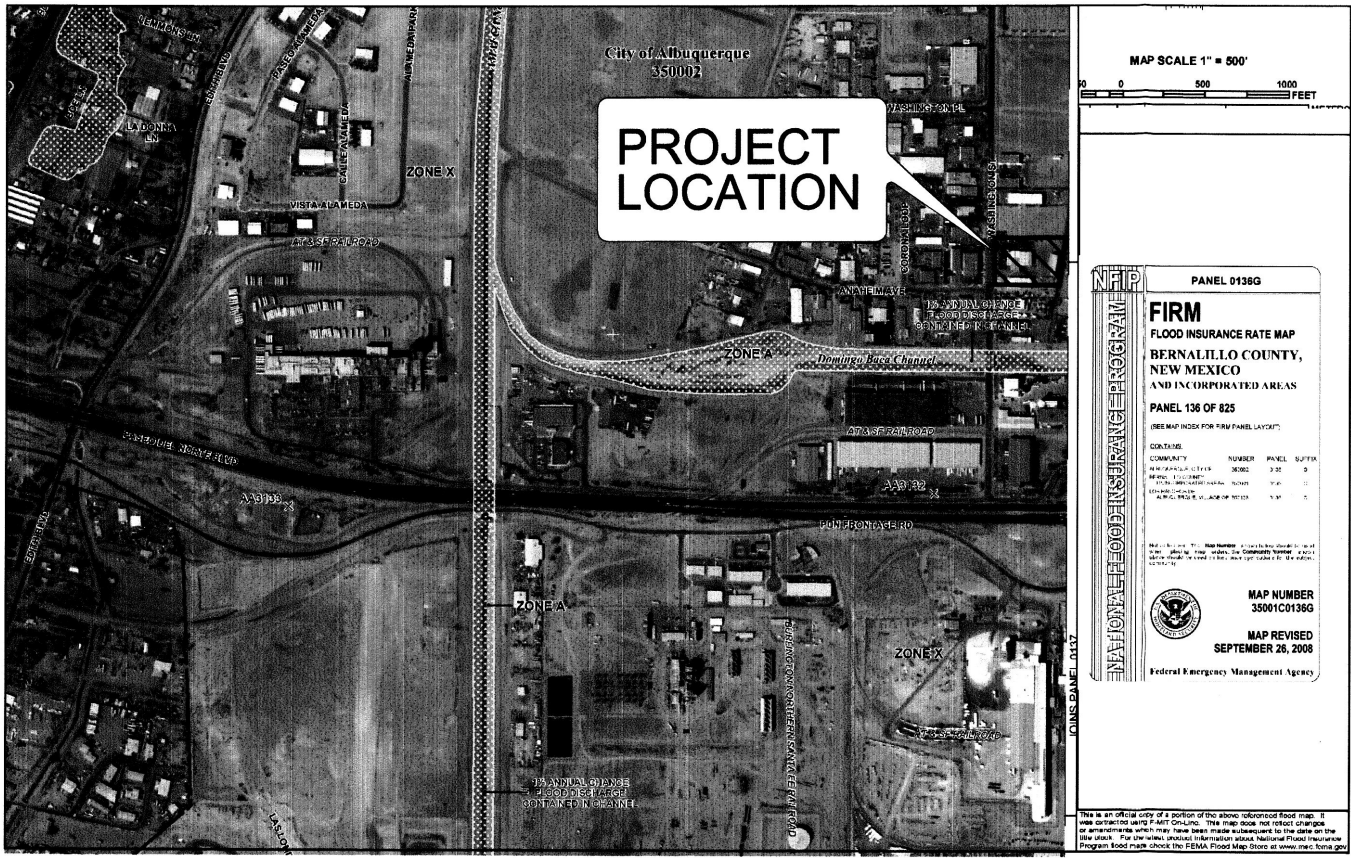
PROJECT HYDROLOGY (EXISTING CONDITIONS)							
AHYMO							
ZONE:	2	8324 Washington NE					
P ₅ HOUR	2.35"						
P ₁₀ DAY	3.95"						
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	Q (cfs)	VOL (ac ft)
SITE	2.00	-0-	-0-	0.80	1.20	8.15	0.287

PROJECT HYDROLOGY (PROPOSED CONDITIONS)							
AHYMO							
ZONE:	2	8324 Washington NE					
P ₅ HOUR	2.35"						
P ₁₀ DAY	3.95"						
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	Q (cfs)	VOL (ac ft)
SITE	2.00	-0-	-0-	0.76	1.24	8.21	0.291



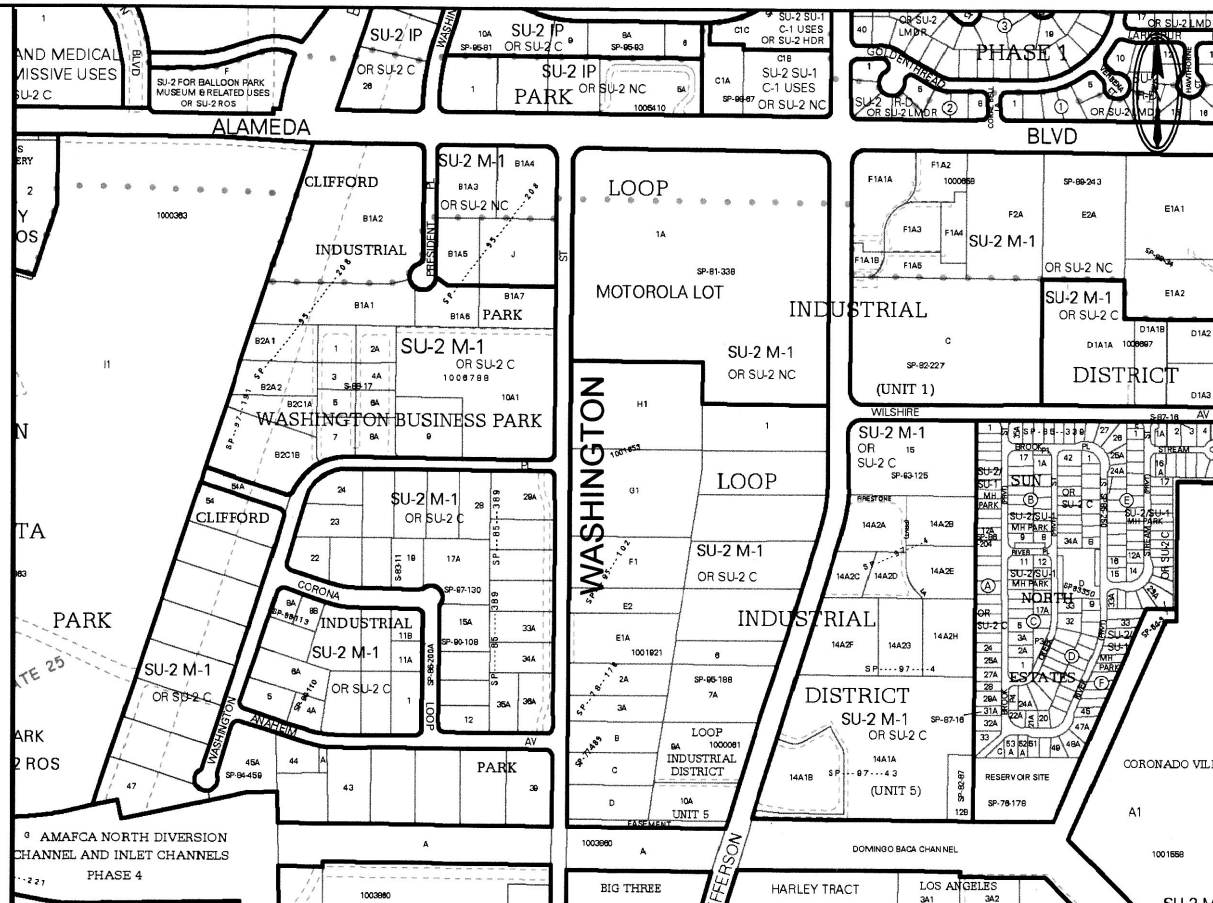
GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'



FIRM PANEL

35001C0136G



C-17-Z

LOCATION MAP

NTS

LEGEND

ITEM	EXISTING	PROPOSED
CURB AND GUTTER		
LIGHT POLE	☆	
POWER POLE WITH ANCHOR	⊕	
TOP OF ASPHALT ELEV.	× 46.50	⊕ 46.50
CONTOUR W/ ELEVATION	--- 4992 ---	— 92 —
ASPHALT PAVING		
DIRECTION OF FLOW	→	→
CONCRETE		

CONSTRUCTION NOTES

- BLI RECOMMENDS THAT THE OWNER OBTAIN A GEOTECHNICAL EVALUATION OF THE ON-SITE SOILS PRIOR TO FOUNDATION/STRUCTURAL DESIGN.
- THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
- IRRIGATION WITHIN 10 FEET OF ANY PROPOSED STRUCTURE IS NOT RECOMMENDED. INTRODUCTION OF IRRIGATION WATER INTO SUBSURFACE SOILS ADJACENT TO THE STRUCTURE COULD CAUSE SETTLEMENT.
- LOCAL CODES MAY REQUIRE ALL FOOTINGS TO BE PLACED IN NATURAL UNDISTURBED SOIL. IF THE CONTRACTOR PLANS TO PLACE FOOTINGS ON ENGINEERED FILL, A CERTIFICATION BY A REGISTERED PROFESSIONAL ENGINEER WILL BE REQUIRED. IF THE CONTRACTOR WISHES BLI TO PREPARE THE CERTIFICATION, WE MUST BE NOTIFIED PRIOR TO PLACEMENT OF THE FILL.
- BLI RECOMMENDS THAT THE OWNER OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO TEST AND INSPECT ALL EARTHWORK ASPECTS OF THE PROJECT.
- THE PROPERTY BOUNDARY SHOWN ON THIS PLAN IS GIVEN FOR INFORMATION ONLY TO DESCRIBE THE PROJECT LIMITS. PROPERTY BOUNDARY INFORMATION SHOWN HEREON DOES NOT CONSTITUTE A BOUNDARY SURVEY. A BOUNDARY SURVEY PERFORMED BY A LICENSED NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR IS RECOMMENDED PRIOR TO CONSTRUCTION.
- ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT UNLESS NOTED OTHERWISE.

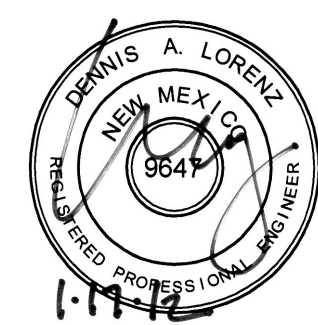
PROJECT DATA

LEGAL DESCRIPTION:
Lots 2A & 3A, Tract 4,
The Lands of Los Angeles

PROPERTY ADDRESS:
8324 Washington Street NE
Albuquerque, New Mexico

SURVEY:
Topographic Mapping prepared by
Brasher & Lorenz, Inc.
January 2012.
Lenore Armijo, NMPS 15511

8324 WASHINGTON STREET N.W.
OVERALL GRADING AND DRAINAGE PLAN



BRASHER & LORENZ
CONSULTING ENGINEERS
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Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

DRAWN BY: M.V.H.	DATE: 1/17/12
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12502 G & D	SHEET 1 OF 2