

**LEGAL DESCRIPTION**  
 THE NORTH 80 FEET OF LOT 8, ALL OF LOTS 9 AND 10 OF 'AVON TECH PARK', SUB., BEING A PART OF THE SOUTHWEST 1/4 OF SECTION 29, TOWN 3 N., RANGE 11 E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, AS RECORDED IN LIBER 184, PAGES 37-40 OF PLATS, OAKLAND COUNTY RECORDS.  
 ALSO INCLUDED, THE NORTH 5 FEET OF LOT 5, ALL OF LOT 6, ALL OF LOT 7 AND THE SOUTH 20 FEET OF LOT 8 OF 'AVON TECH PARK' SUB., BEING A PART OF THE SOUTHWEST 1/4 OF SECTION 29, TOWN 3 N., RANGE 11 E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 184, PAGES 37-40 OF PLATS, OAKLAND COUNTY RECORDS.  
 CONTAINING 184,342.56 SQUARE FEET OR 4.232 ACRES OF LAND

**TOPO NOTES**  
 ALL ELEVATIONS ARE EXISTING ELEVATIONS.  
 UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.  
 THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER

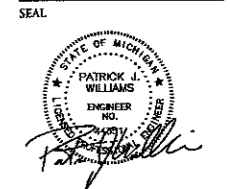
**TREE INVENTORY LIST**

ID#	Species Name	Common Name	DBH	Cond.	Comments
1	Picea pungens	Colorado Blue Spruce	11	Good	
2	Malus spp.	Crabapple spp.	8	Good	
3	Malus spp.	Crabapple spp.	8	Good	
4	Acer glaberrimum	Honey Maple	13	Good	Tan spot below discolor
5	Malus spp.	Crabapple spp.	9	Good	
6	Picea pungens	Colorado Blue Spruce	10	Good	
7	Malus spp.	Crabapple spp.	9	Good	Some girdling roots
8	Picea abies	Norway Spruce	12	Good	
9	Picea abies	Norway Spruce	12	Good	
10	Acer rubrum	Red Maple	3.5	Good	
11	Picea pungens	Colorado Blue Spruce	9	Good	
12	Picea abies	Norway Spruce	11	Fair	Some cytophthora canker disease suspected
13	Acer rubrum	Red Maple	3	Good	Some weak trunk injuries
14	Acer rubrum	Red Maple	3.5	Good	
15	Acer rubrum	Red Maple	3	Good	
16	Acer rubrum	Red Maple	3	Good	
17	Acer rubrum	Red Maple	3.5	Good	
18	Acer rubrum	Red Maple	3	Good	
19	Acer rubrum	Red Maple	2	Poor	Terminal leader is dead
20	Acer rubrum	Red Maple	4	Good	

**Condition Description Notes:**  
 "Good" - no observed structural defects  
 "Fair" - minor structural defects, marginal form, some insect activity noted  
 "Poor" - major structural defects, poor form, insect infestation  
 "Structural defects may include decayed wood, cracks, roof problems, weak branch unions, crotches, poor tree architecture, dead/dying branches due to various causes"

**NF ENGINEERS**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS  
 46777 WOODWARD AVE.  
 PONTIAC, MI 48342-5032  
 TEL (248) 332-7931  
 FAX (248) 332-8257



PROJECT  
 ADCO Circuits  
 2868 Bond Street

CLIENT  
 ADCO Circuits  
 2868 Bond Street  
 Rochester Hills, MI 48309

Contact:  
 Archie Damman  
 Tel: 248.829-4666

PROJECT LOCATION  
 Part of the Southwest 1/4 of Section 29 T. 3 North, R. 11 East City of Rochester Hills, Oakland County, Michigan

SHEET  
 Topographic and Tree Survey



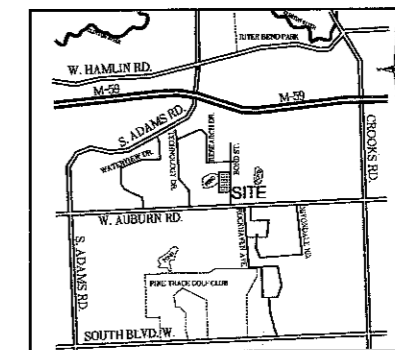
DATE ISSUED / REVISED

DRAWN BY:  
 A. Wiseman  
 DESIGNED BY:

APPROVED BY:  
 P. Williams  
 DATE:  
 12-20-11  
 SCALE:  
 1" = 30'

NFE JOB NO. C035-01 SHEET NO. SP-1

NOT TO BE USED AS CONSTRUCTION DRAWINGS



LOCATION MAP  
N.T.S.

### LEGEND

	MANHOLE	EXISTING SANITARY SEWER
	GATE VALVE	EXISTING WATER MAIN
	MANHOLE	EXISTING STORM SEWER
		EXISTING BURIED CABLES
		EXISTING GAS MAIN
		EXISTING OVERHEAD LINES
	UTILITY POLE	EXISTING UTILITY POLES
	EXISTING LIGHT POLE	EXISTING SIGN
	MANHOLE	PR. SANITARY SEWER
	GATE VALVE	PROPOSED WATER MAIN
	MANHOLE	PROPOSED STORM SEWER
		PR. SAND BACKFILL
		UTILITY CROSSING
		PR. TOP OF CURB ELEVATION
		PROPOSED GUTTER ELEVATION
		PR. TOP OF WALK ELEVATION
		PR. TOP OF PAVEMENT ELEV.
		PROPOSED FINISH GRADE
		PROPOSED CONTOUR
		PROPOSED SINGLE
		PR. DRAINAGE DIRECTION
		PROPOSED DRAINAGE AREA LIMITS
		PROPOSED SOIL DISRUPTION

### PAVING LEGEND

	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

### LEGAL DESCRIPTION

THE NORTH 50 FEET OF LOT 8, ALL OF LOTS 9 AND 10 OF "AVON TECH PARK SUBDIVISION", BEING A PART OF THE SOUTHWEST 1/4 OF SECTION 29, TOWN 3 N., RANGE 11 E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, AS RECORDED IN LIBER 184, PAGES 37-40 OF PLATS, OAKLAND COUNTY RECORDS.

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CONTAINING 184,342.56 SQUARE FEET OR 4.232 ACRES OF LAND

### ZONING CLASSIFICATION

PROPERTY IS ZONED E INDUSTRIAL  
ALL SURROUNDING PROPERTY IS ZONED E INDUSTRIAL

### SOIL CLASSIFICATIONS

THE EXISTING SITE IS COMPOSED OF:  
41B - AQUENTS, SANDY, LOAMY, UNSATURATED  
41B - BODIES SANDY LOAM, 1 TO 6 PERCENT SLOPES  
PER THE USDA - NISS COUNTY SOIL SURVEY

### SITE DATA

**SITE AREA**  
GROSS: 184,342.56 SQUARE FEET OR 4.232 ACRES

**BUILDING AREA**  
GROSS (EXISTING) = 42,723 SQUARE FEET  
GROSS (PROPOSED) = 12,100 SQUARE FEET  
USABLE (TOTAL) = 34,823 SQUARE FEET

**BUILDING HEIGHT**  
MAXIMUM PERMITTED = 42' HEIGHT  
EXISTING BUILDING = 23' HEIGHT  
PROPOSED ADDITION = 23' HEIGHT

**BUILDING DATA**  
CONSTRUCTION TYPE: 2B  
USE GROUP: F-1 / S-1

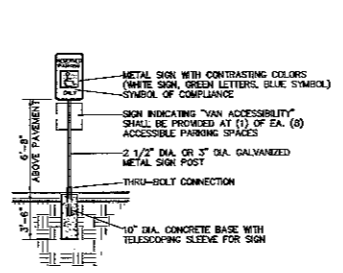
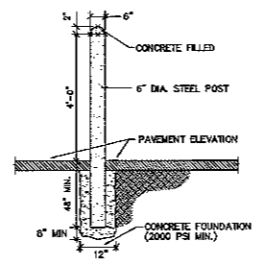
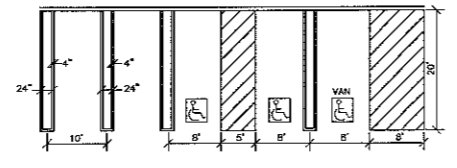
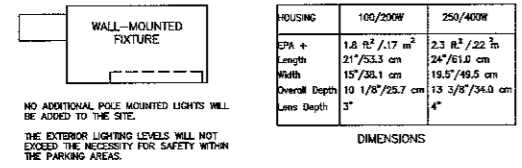
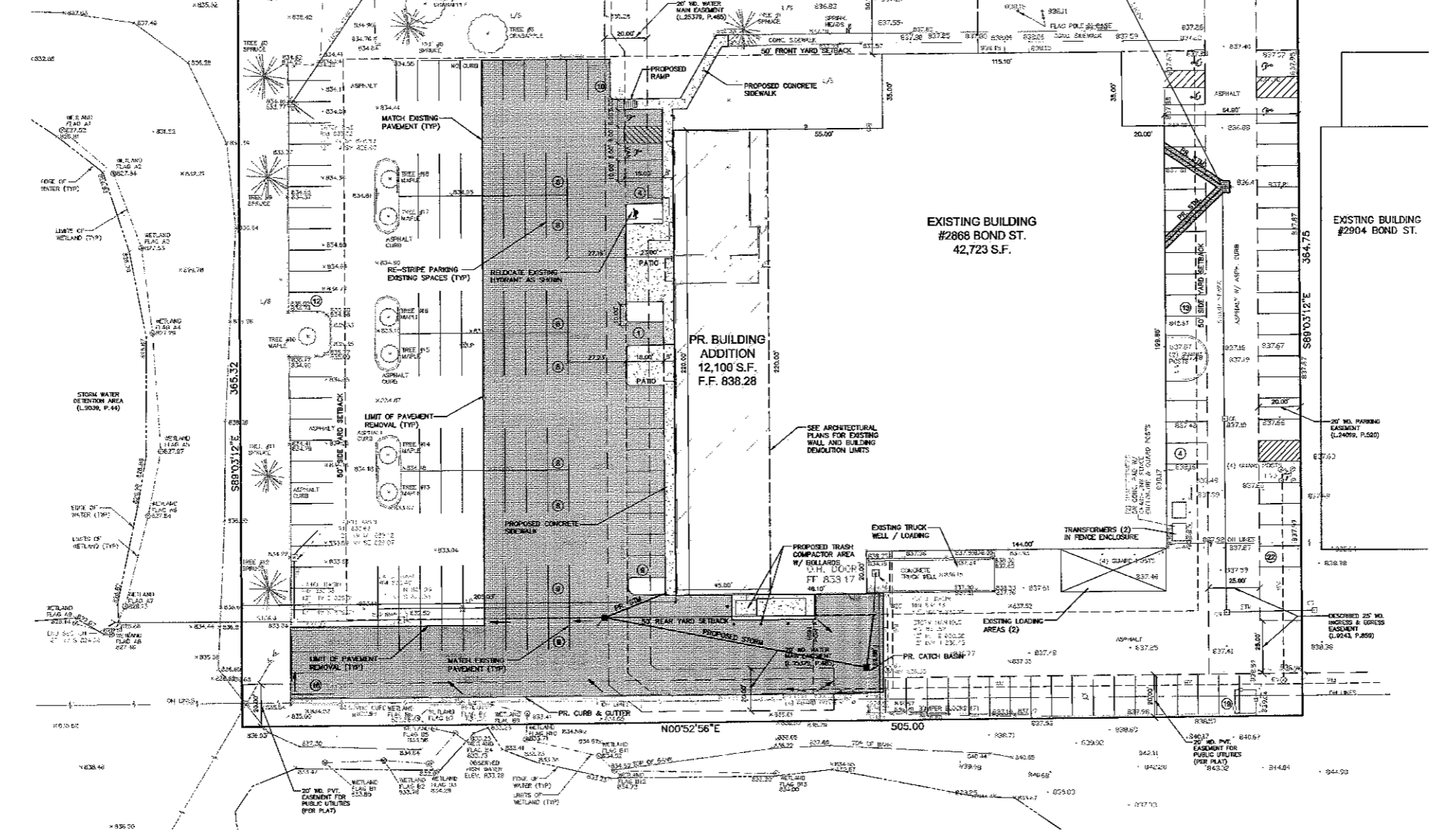
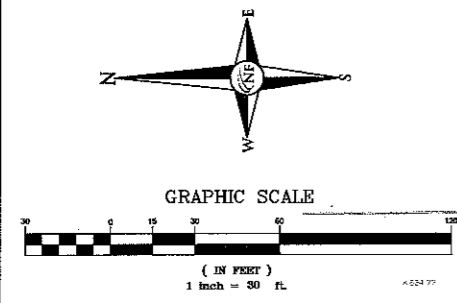
**ZONING**  
EXISTING: E INDUSTRIAL  
PROVIDED: E INDUSTRIAL

**SETBACKS:** REQUIRED PROVIDED  
FRONT: 50' (EAST) 50' (TO BUILDING FACE)  
SIDE: 50' (NORTH) 395' (TO BUILDING FACE)  
SIDE: 50' (SOUTH) 64' (TO BUILDING FACE)  
REAR: 60' (TO BUILDING FACE) 60' (TO BUILDING FACE)

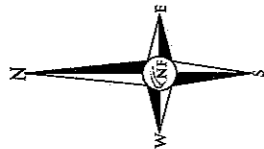
**PARKING REQUIRED:**  
OFFICE: 1 SPACE PER 300 GROSS S.F. = 11,995/300 = 37  
SHOP: 1 SPACE PER 400 GROSS S.F. = 41,527/400 = 104  
WAREHOUSE: 1 SPACE PER 1,700 S.F. = 2,200/1,700 = 2

**TOTAL PARKING SPACES REQUIRED = 143**

**EXISTING PROPOSED:**  
10' X 18' PARKING SPACES = 178  
8' X 18' BARRIER FREE SPACES = 8 (INC. 1 VAN SPACE)  
10' X 50' LOADING AREA SPACES = 3 (INC. 1 TRUCK WELL)

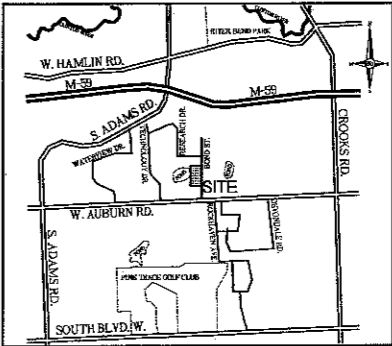
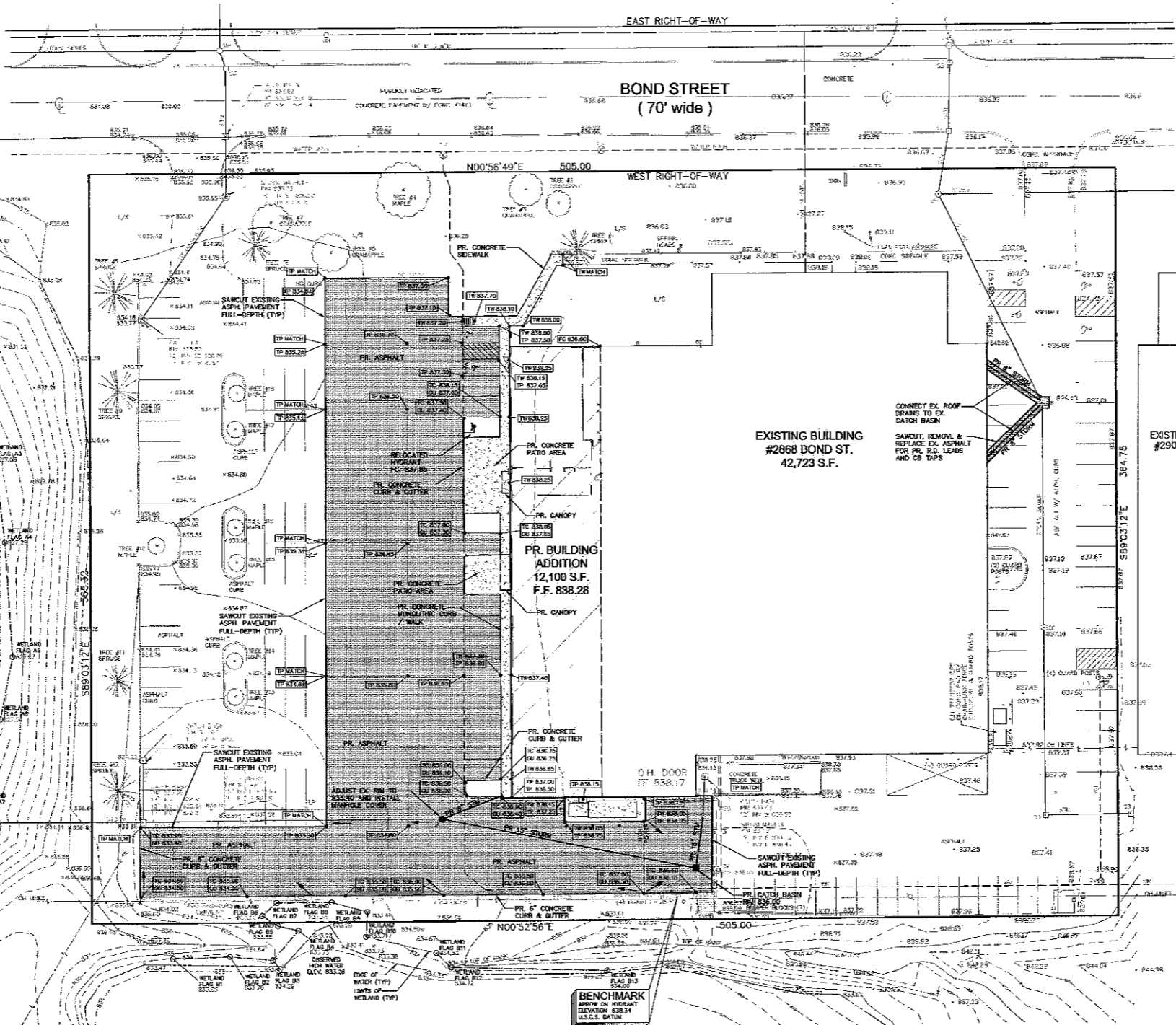


- ### GENERAL NOTES
- ALL HYDRANTS SHALL HAVE A MIN. OF 5' CLEARANCE FROM BACK OF CURB.
  - BUILDING USE WILL BE OFFICE AND LIGHT ASSEMBLY FACTORY.
  - ALL PARKING SPACE DIMENSIONS ARE TO THE FACE OF CURB / WALK.
  - THERE WILL BE NO FLOOR DRAINS IN THE PROPOSED SHOP ADDITION, THEREFORE NO INDUSTRIAL WASTE IS ANTICIPATED AT THIS TIME.
  - CONSTRUCTION SITE SHALL BE SAFEGUARDED IN ACCORDANCE WITH UNIFORM FIRE CODE ARTICLE 67.
  - OPEN BURNING IS NOT PERMITTED INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS.
  - EXTERIOR LIGHTING SHALL BE SHIELDED AND DIRECTED AWAY FROM OFF-SITE AREAS.



GRAPHIC SCALE

( IN FEET )  
1 inch = 80 ft.



**NF ENGINEERS**  
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FAX. (248) 332-8257

**LEGEND**

CLEAN-OUT MANHOLE	EXISTING SANITARY SEWER
HYDRANT	EXISTING WATER MAIN
INLET PIPE MANHOLE	EXISTING STORM SEWER
UTILITY POLE	EXISTING BURIED CABLES
EXISTING LIGHT POLE	EXISTING GAS MAIN
EXISTING SIGN	EXISTING OVERHEAD LINES
CA.	PR. SANITARY SEWER
HYDRANT	PROPOSED WATER MAIN
INLET PIPE MANHOLE	PROPOSED STORM SEWER
COMPACT TO 95% MAX. DENSITY	PR. SAND BACKFILL
A	UTILITY CROSSING
(E) 500.00	PR. TOP OF CURB ELEVATION
(S) 500.00	PROPOSED CUTTER ELEVATION
(W) 500.00	PR. TOP OF WALK ELEVATION
(P) 500.00	PR. TOP OF PAVEMENT ELEV.
(F) 500.00	PROPOSED FINISH GRADE
(C) 500.00	PROPOSED CONTOUR
(S)	PROPOSED SWALE
(S)	PR. DRAINAGE DIRECTION
(S)	PROPOSED INLET FILTER
(S)	DRAINAGE AREA LIMITS
(S)	PROPOSED SILT FENCE
(S)	LIMITS OF SOIL DISRUPTION

**PAVING LEGEND**

(Symbol)	PROPOSED CONCRETE PAVEMENT
(Symbol)	PROPOSED ASPHALT PAVEMENT

SEAL



**PROJECT**  
ADCO Circuits  
2868 Bond Street

**CLIENT**  
ADCO Circuits  
2868 Bond Street  
Rochester Hills, Michigan  
MI 48309

**Contact:**  
Archie Damman  
Tel: 248.829.4666

**PROJECT LOCATION**  
Part of the Southwest 1/4 of Section 29 T. 3 North, R. 11 East City of Rochester Hills, Oakland County, Michigan

**SHEET**  
Paving, Grading and Utility Plan



DATE	ISSUED / REVISED

**DRAWN BY:**  
A. Wiseman

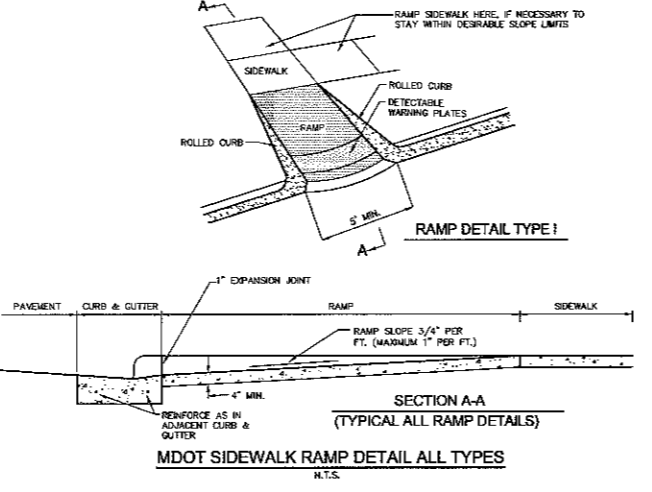
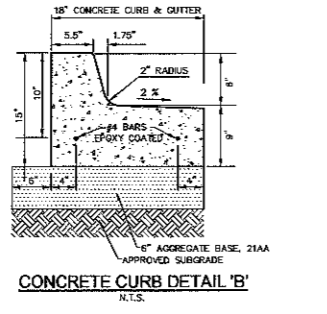
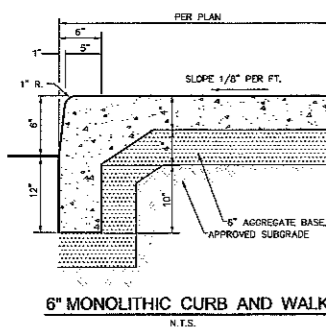
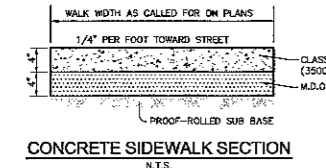
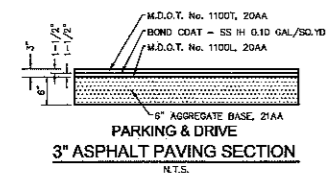
**DESIGNED BY:**  
P. Williams

**APPROVED BY:**  
12-20-11

**SCALE:**  
1" = 30'

**NFE JOB NO. SHEET NO.**  
C035-01 SP-3

**NOT TO BE USED AS CONSTRUCTION DRAWINGS**



**GENERAL PAVING NOTES**

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE - MDOT BITUMINOUS MIXTURE NO. 1100L, 20AA; SURFACE COURSE - MDOT BITUMINOUS MIXTURE NO. 1100T, 20AA; ASPHALT CEMENT PENETRATION GRADE 85-100, BOND COAT - MDOT 55-1M EMULSION AT 0.10 GALLON PER SQUARE YARD; MAXIMUM 2 INCH LIFT.

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURBS & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT Poured RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION 503-5164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1953, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN OBTAINED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LICENSE ARRANGE FOR ALL INSPECTION.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RAMP.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

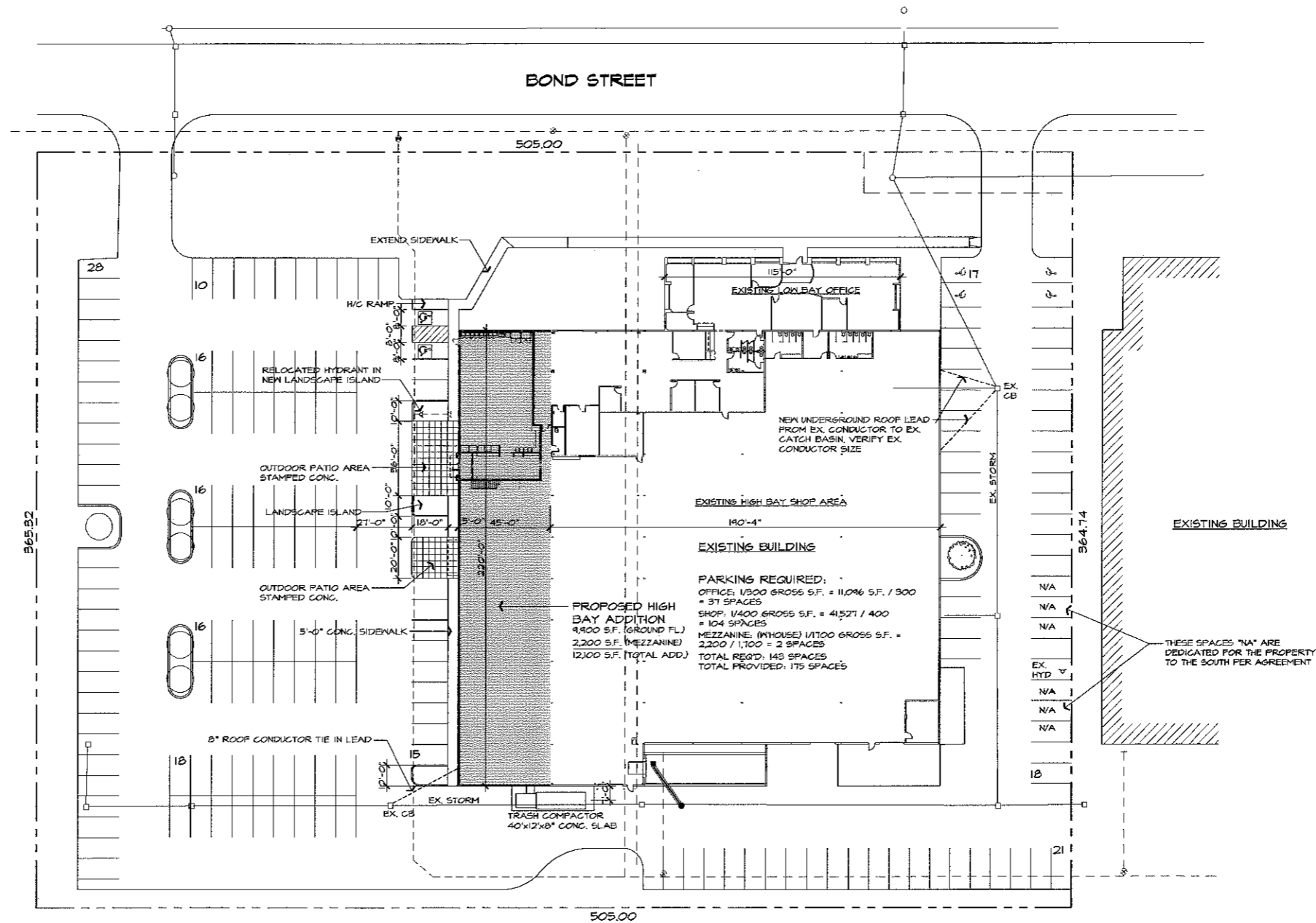
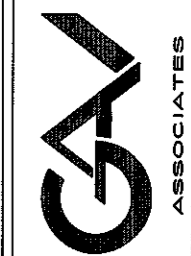
ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

ISSUED FOR	DATE
SPA	12-20-11

**ARCHITECTURAL  
DESIGN**  
RESIDENTIAL  
COMMERCIAL  
INDUSTRIAL

G.A.V. & ASSOCIATES, INC.  
31471 NORTHWESTERN HWY., SUITE #2  
FARMINGTON HILLS, MI, 48334  
(248) 985-9101  
FAX (248) 985-9105  
EMAIL: GAV@GVAASSOCIATES.COM



NORTH **SITE PLAN** SCALE: 1" = 30'



PROPOSED NEW ADDITION FOR:  
ADCO CIRCUITS  
2868 BOND ST.  
ROCHESTER HILLS, MICHIGAN

DRAWN:	DESIGNED:	CHECKED:
AV		

SCALE: 1" = 30'

FILE NAME: .

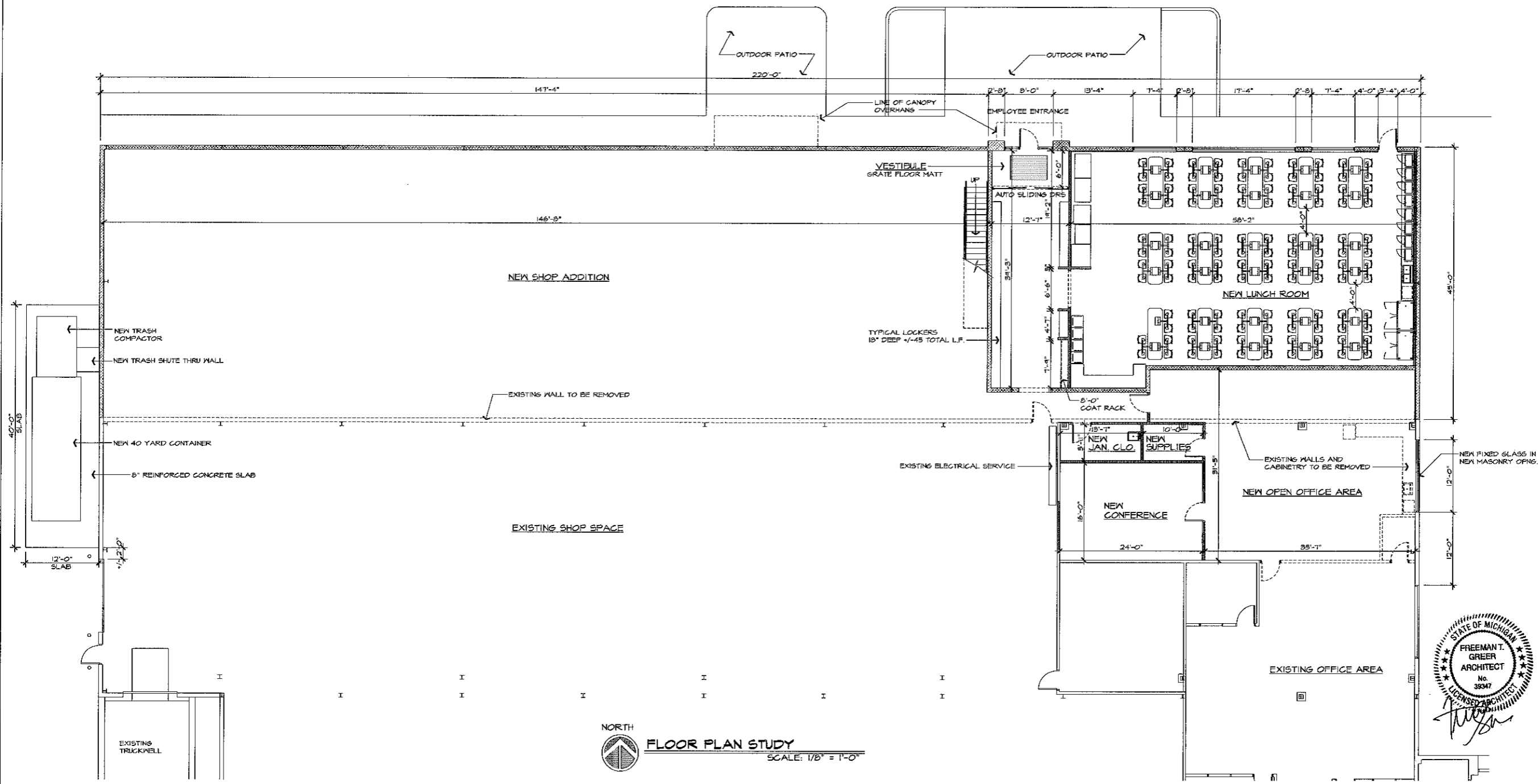
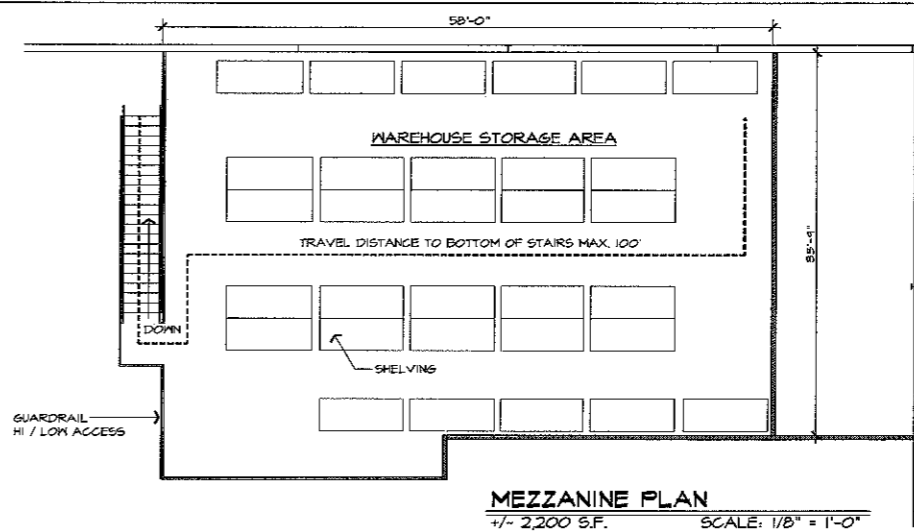
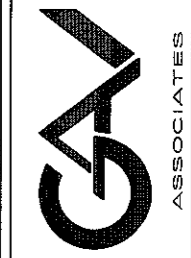
JOB #: 11107

SHEET TITLE  
SITE  
PLAN

SHEET #  
SD-1

ISSUED FOR	DATE
SPA	12-20-11

**ARCHITECTURAL DESIGN**  
**RESIDENTIAL COMMERCIAL INDUSTRIAL**  
 G.A.V. & ASSOCIATES, INC.  
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 EMAIL: GAV@GVAASSOCIATES.COM



**PROPOSED NEW ADDITION FOR:**  
**ADCO CIRCUITS**  
**2868 BOND ST.**  
**ROCHESTER HILLS, MICHIGAN**

DRAWN:	DESIGNED:	CHECKED:
AV		

SCALE: 1/8" = 1'-0"

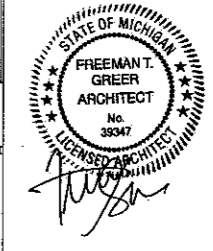
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SHEET TITLE  
 FLOOR PLAN

SHEET #

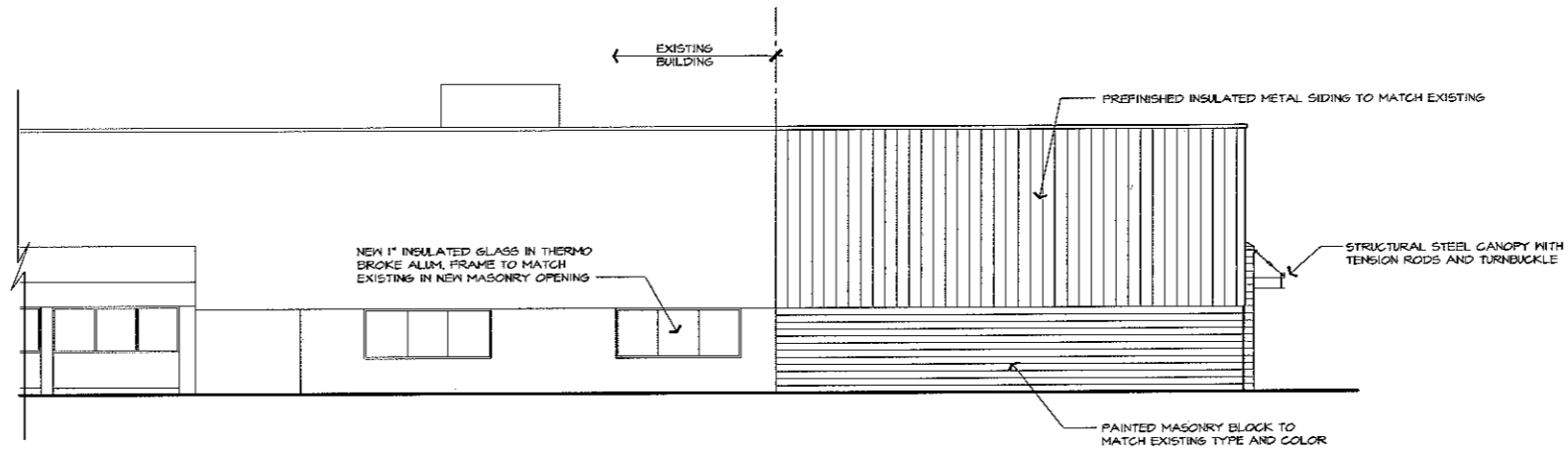
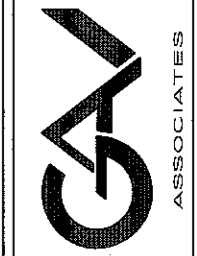
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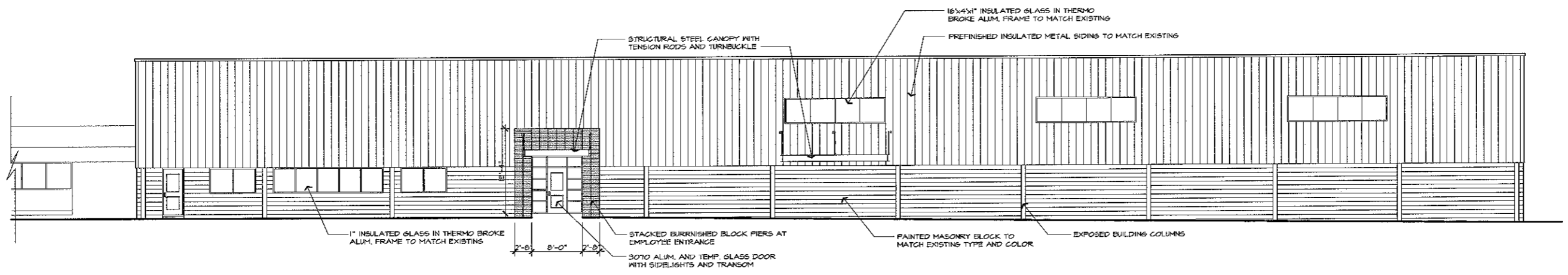
**NORTH**  
**FLOOR PLAN STUDY**  
 SCALE: 1/8" = 1'-0"

ISSUED FOR	DATE
EPA	12-12-11

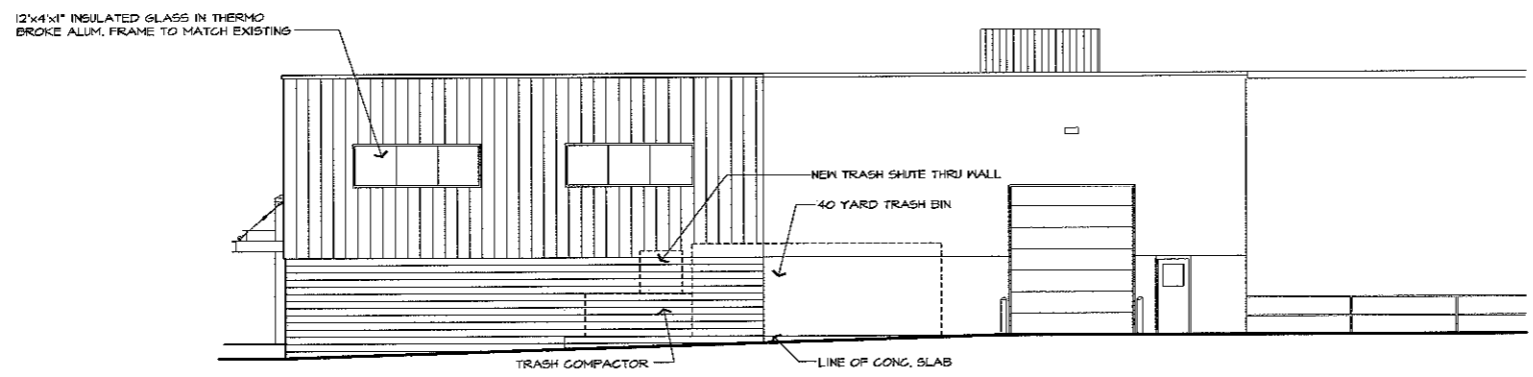
**ARCHITECTURAL DESIGN**  
**RESIDENTIAL COMMERCIAL INDUSTRIAL**  
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 31471 NORTHWESTERN HWY., SUITE #2  
 FARMINGTON HILLS, MI 48334  
 (248) 985-4100  
 FAX (248) 985-9105  
 EMAIL: GAV@GAVASSOCIATES.COM



**EAST ELEVATION**  
 SCALE: 1/8" = 1'-0"



**NORTH ELEVATION**  
 SCALE: 1/8" = 1'-0"

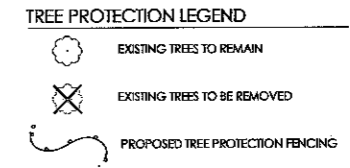
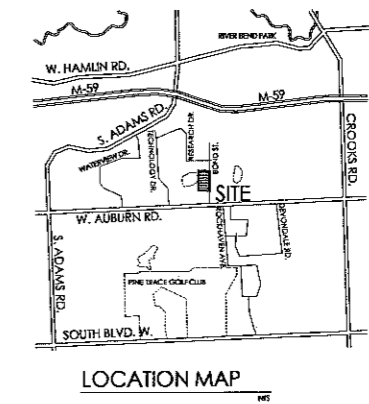
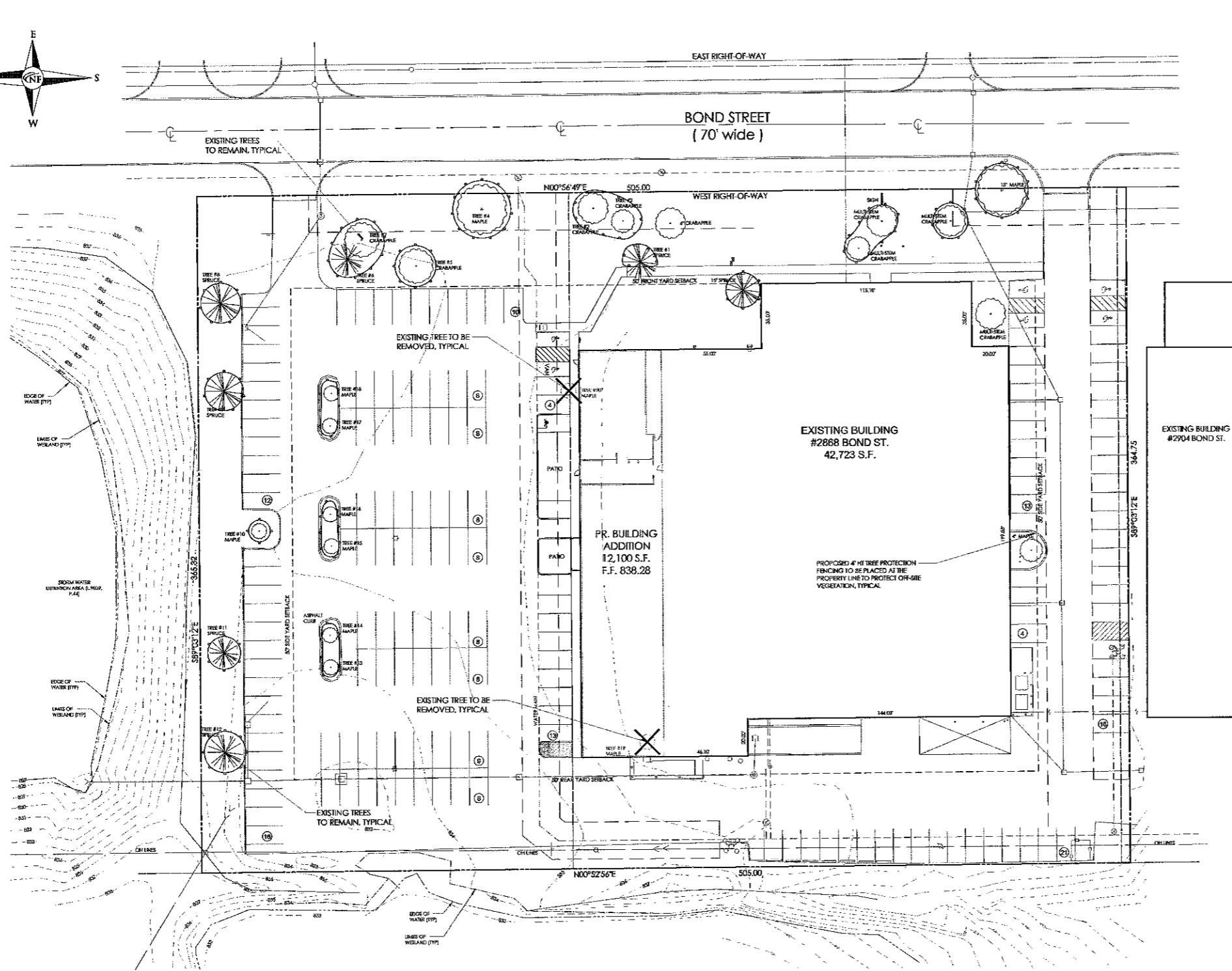
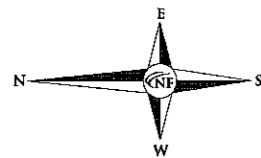


**WEST ELEVATION**  
 SCALE: 1/8" = 1'-0"

**PROPOSED NEW ADDITION FOR:**  
**ADCO CIRCUITS**  
**2868 BOND ST.**  
**ROCHESTER HILLS, MICHIGAN**

DRAWN:	DESIGNED:	CHECKED:
AV		
SCALE: 1/8" = 1'-0"		
FILE NAME: .		
JOB #: 11107		
SHEET TITLE		
EXTERIOR ELEVATIONS		
SHEET #		
A-201		





**GENERAL TREE PROTECTION NOTES**

- APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
- NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
- WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
- DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE SCHEDULED TO REMAIN.
- ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
- SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
- TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
- ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH REGULARLY STAKED FENCING.
- THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
- THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
- ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
- THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MANUALLY WITH A HYDRO-AXE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES. FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN, TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNER REPRESENTATIVE.

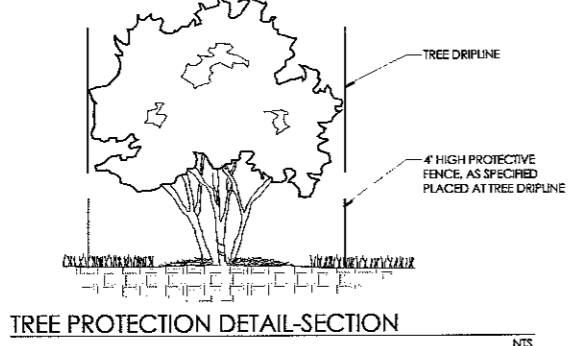
**TREE PRESERVATION SUMMARY**

TREES 2 1/2" DBH SHALL BE REPLACED AT 1:1

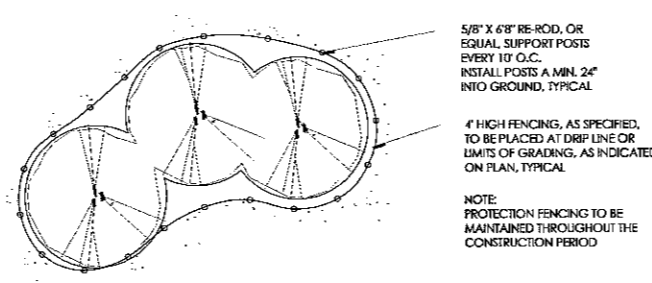
2" CAL. DECIDUOUS =	1 CREDIT
2 1/2" CAL. DECIDUOUS =	1.5 CREDIT
3" CAL. DECIDUOUS =	2 CREDITS
4" CAL. DECIDUOUS =	2 CREDITS
4" CAL. EVERGREEN =	1 CREDIT
10" FT. EVERGREEN =	2 CREDITS

TOTAL TREES SURVEYED:	20
TOTAL DEAD TREES ON-SITE:	0
TOTAL OFF-SITE TREES:	0
TOTAL NET REGULATED TREES:	20
TOTAL TREES TO BE SAVED:	18
TOTAL TREES TO BE REMOVED:	2 (OF UNREGULATED SIZE)
TOTAL REPLACEMENT CREDITS REQUIRED:	0
TOTAL REPLACEMENT CREDITS PROVIDED:	0

NO REGULATED TREES ARE TO BE REMOVED



TREE PROTECTION DETAIL-SECTION NTS



TREE PROTECTION DETAIL-PLAN NTS

**TREE INVENTORY LIST**

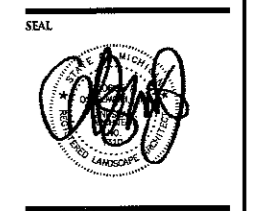
Tree #	Botanical Name	Common Name	DBH	Code	Comments
1	Picea pungens	Colorado Blue Spruce	11	Good	
2	Malus spp.	Crabapple spp.	10	Good	
3	Malus spp.	Crabapple spp.	10	Good	
4	Acer platanoides	Norway Maple	13	Good	Tar spot leaf disease
5	Malus spp.	Crabapple spp.	12	Good	
6	Picea pungens	Colorado Blue Spruce	10	Good	
7	Malus spp.	Crabapple spp.	12	Good	Some girdling roots
8	Picea abies	Norway Spruce	12	Good	
9	Picea abies	Norway Spruce	12	Good	
10	Acer rubrum	Red Maple	13.5	Good	
11	Picea pungens	Colorado Blue Spruce	9	Good	
12	Picea abies	Norway Spruce	11	Fair	Some cytophthora canker disease suspect
13	Acer rubrum	Red Maple	13	Good	Some small trunk injuries
14	Acer rubrum	Red Maple	13.5	Good	
15	Acer rubrum	Red Maple	13	Good	
16	Acer rubrum	Red Maple	13	Good	
17	Acer rubrum	Red Maple	13.5	Good	
18	Acer rubrum	Red Maple	13	Good	
19	Acer rubrum	Red Maple	12	Fair	Terminal leader is dead
20	Acer rubrum	Red Maple	4	Good	

Condition Descriptions / Notes:  
 "Good" - no observed structural defects  
 "Fair" - minor structural defects, marginal form, some limited activity noted  
 "Poor" - major structural defects, poor form, insect infestation  
 \*Structural defects may include decayed wood, cracks, root problems, weak branch unions, cavities, poor tree architecture, diseased trunks due to insects, etc.

**NOTE:**  
 NO DIGGING, GRADING (CUT OR FILL), TRENCHING OR ANY OTHER CONSTRUCTION OPERATION IS PERMITTED WITHIN THE DRIFLINE OF ANY TREE DESIGNATED FOR PRESERVATION.

**NF ENGINEERS**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS  
 46777 WOODWARD AVE.  
 PONTIAC, MI 48342-5032  
 TEL. (248) 332-7931  
 FAX. (248) 332-8257



**PROJECT**  
 ADCO Circuits  
 2868 Bond Street

**CLIENT**  
 ADCO Circuits  
 2868 Bond Street  
 Rochester Hills, MI 48309

**Contact:**  
 Archie Damman  
 Tel: 248.829-4666

**PROJECT LOCATION**  
 Part of the Southwest 1/4  
 of Section 29 T. 3 North,  
 R. 11 East City of  
 Rochester Hills, Oakland  
 County, Michigan

**SHEET**  
 Tree Preservation Plan



DATE	ISSUED / REVISED

**DRAWN BY:**  
 G. Ostrowski

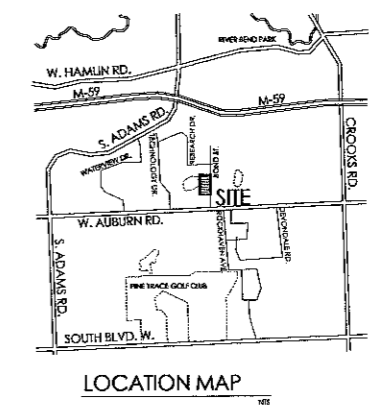
**DESIGNED BY:**  
 G. Ostrowski

**APPROVED BY:**  
 G. Ostrowski

**DATE:**  
 12-20-11

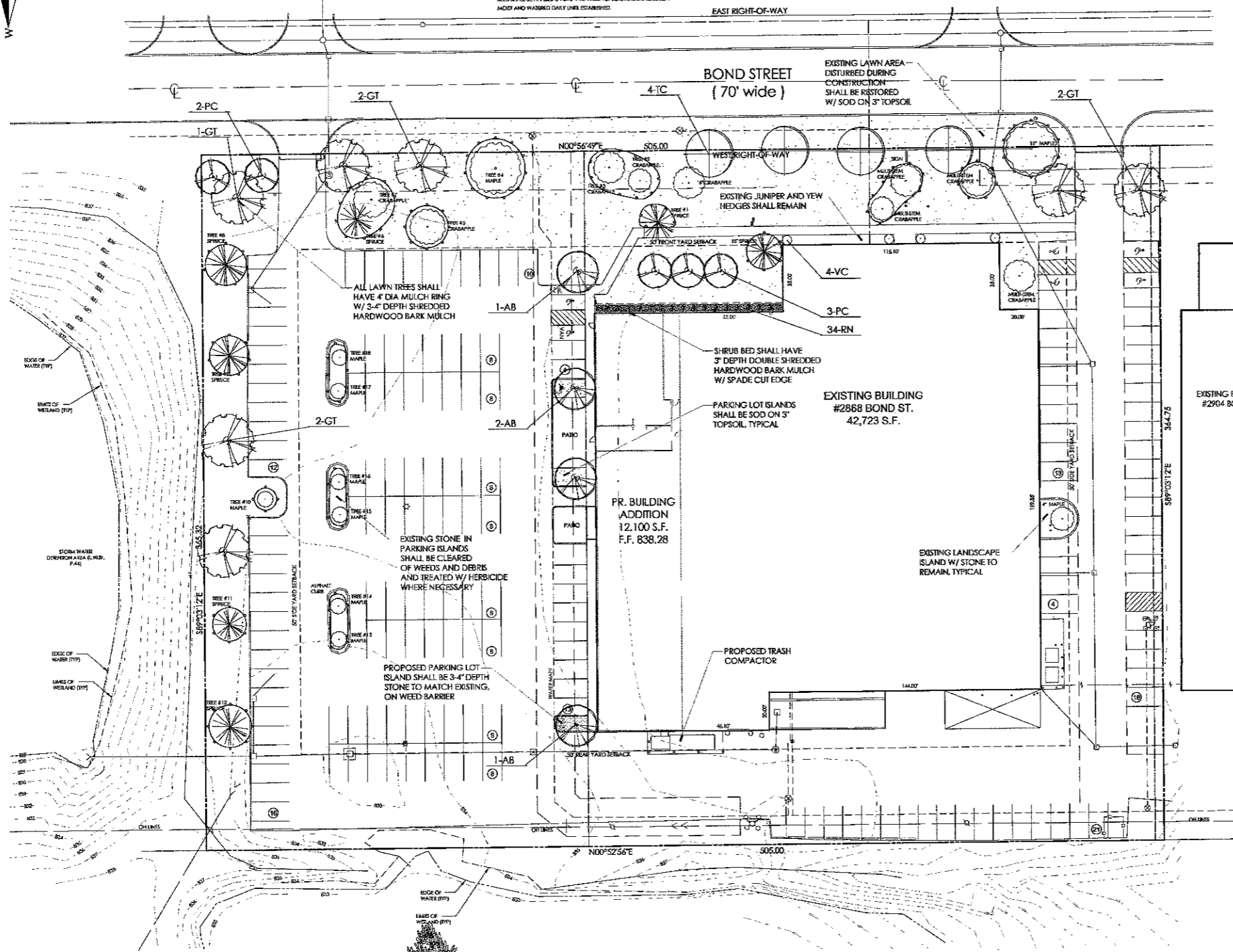
**SCALE:**  
 1" = 30'

**NFE JOB NO. SHEET NO.**  
 C035-01 L-1



**SEED NOTE:**  
ALL LAWN AREAS DESIGNATED TO BE SEEDDED SHALL BE HYDRATED WITH SPICES NORMALLY GROWN IN OAKLAND COUNTY. IN AREAS SUBJECT TO BROKEN LAWN SHALL BE SOODED & SIZED UNTIL ESTABLISHED. ALL SEED SHALL BE MIXED OVER 2" PREPARED TOPSOIL AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.

**SOD NOTE:**  
ALL LAWN AREAS DESIGNATED TO BE SOODED SHALL BE SOODED WITH A SPECIES NORMALLY GROWN IN OAKLAND COUNTY. ALL SOD SHALL BE PLACED ON 2" PREPARED TOPSOIL AND WATERED DAILY UNTIL ESTABLISHED.



### GENERAL LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANNING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLANNING AND RELATED WORK, THE PLANNING DESIGNER SHALL BE CONTACTED FOR CLARIFICATION.
2. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON EITHER PHASE OF WORK. ANY DAMAGE OR INTERFERENCE OF UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES AND SHALL REPORT ANY UNACCEPTABLE SITE CONDITIONS TO THE CLIENT IMMEDIATELY UPON DISCOVERY.
4. PLANTS SHALL BE FULLY BRANCHED AND IN HEAVY VEGETATIVE GROWING CONDITION.
5. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE. ALL TREES MUST BE STAKED, TIED AND BRANCHED AND SHALL BE MAINTAINED TO ENSURE A NORMAL GROWTH PATTERN FOR AT LEAST TWO (2) YEARS FOLLOWING APPROVAL OF THE CITY'S LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL VERIFY TREE SPECIES AND SIZE WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY TREE SPECIES AND SIZE WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY TREE SPECIES AND SIZE WITH THE ARCHITECT.
7. ALL MATERIALS TO BE USED SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIALS AND SPECIES ON RECORD SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
8. CONTRACTOR SHALL VERIFY TREE SPECIES AND SIZE WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY TREE SPECIES AND SIZE WITH THE ARCHITECT.
9. PROVIDE CLEAN AND SOIL. SOIL MATERIAL STOCKPILED ON-SITE SHALL BE COVERED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND OTHER CONTAMINANTS. FERTILIZER SHALL BE ADDED TO THE SOIL BEFORE BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURER'S RECOMMENDED RATE.
10. AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/2 SCREENED TOPSOIL, 1/2 SAND, AND 1/2 FERTILIZER WELL AND SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
11. ALL PLANTING SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME TO A DEPTH OF 12" FOR TREES AND SHRUBS, AND 2" FOR ANNUALS, PERENNIALS, AND GROUND COVER PLANTS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIALS AND SPECIES ON RECORD SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
12. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL POSITION THROUGHOUT THE GUARANTEED PERIOD.
13. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CONTRACT LIMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXISTING AREAS (DEBRIS DURING CONSTRUCTION) NOT IN THE CONTRACT LIMITS TO REMAIN OR GREATER CONDITION.
14. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PROVIDES EXCESSIVE WATER FROM PLANTING ON LAWN AREAS OF TREES AND SHRUBS.
15. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

### IRRIGATION NOTE:

ALL LANDSCAPE AREAS WILL BE IRRIGATED IN CONFORMANCE WITH THE CITY OF ROCHESTER HILLS REQUIREMENTS. THE IRRIGATION SYSTEM SHALL BE EXPANDED WHERE FEASIBLE TO COVER ALL NEW AREAS.

### MISCELLANEOUS NOTES

1. SEE PLANT SCHEDULE FOR SPECIES, SPACING AND SIZE.
2. TREE PROTECTION FENCING SHALL BE INSTALLED AND INSPECTED AS NECESSARY PRIOR TO THE START OF CONSTRUCTION.
3. ALL PLANT TREES SHALL BE EDGED WITH SPICE OR BEEHIVE TYPICAL.
4. ALL SOODED LAWN AREAS SHALL BE CRANDED, FERTILIZED AND SOODED WITH CLASS A BLEND BLUEGRASS SOIL GROWN ON TOPSOIL ON A MINIMUM OF 2" PREPARED TOPSOIL. PREPARED TOPSOIL SHALL CONSIST OF SCREENED ORGANIC TOPSOIL WITH AMMONIUM NITROGEN AS FERTILIZER.
5. ALL LANDSCAPE ISLANDS SHALL BE BACKFILLED WITH AMENDED SOIL, WHERE NECESSARY TO FACILITATE DRAINAGE.
6. ALL PROPOSED LANDSCAPE ISLANDS SHALL BE SECURED.
7. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
8. OVERHEAD UTILITY LINES AND POLES TO BE RELOCATED SHALL BE COORDINATED AND ORDERED BY THE UTILITY COMPANY OF RECORD.
9. TREES AND SHRUBS SHALL BE PLANTED A MINIMUM OF 12" FROM A TREE MOUND AND MOUND, AND 12" FROM OVERHEAD WIRES.
10. ALL PROPOSED PARKING LOT TREES SHALL BE PLANTED A MINIMUM OF 4' FROM THE BACK OF CURB AND PROPOSED WALKS.
11. ALL TREE AND SHRUB PLANTING TREES SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK. MULCH TO BE A MINIMUM DEPTH OF 4" FOR ALL LAWN AREAS. TREES SHALL HAVE A 4" DIAMETER CIRCLE OF SHREDDED HARDWOOD MULCH 2" MINIMUM AWAY FROM TRUNK. ALL PERENNIAL, ANNUAL, AND GROUND COVER TREES SHALL RECEIVE A 2" DEEP DARK COLORED BARK MULCH MULCH TO BE 2" FROM TRUNK AND FERTILIZER MATERIAL, AND SHALL CONTAIN PIECES OF INCONSPICUOUS BARK.

### NOTES:

1. ALL LANDSCAPE AREAS ARE MEASURED FROM THE BACK OF CURB.
2. ALL GROUND SIGNS AND BLDG MOUNTED SIGNS REQUIRE A SEPARATE SIGN PERMIT FROM THE BUILDING DEPARTMENT, AND ARE NOT PART OF THE SITE PLAN APPROVAL.

### PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT
AB	4	Acer rubrum 'Nimbus' / Norway Spruce	3" CAL	SEE PLAN	B&B	FULL MATCHED HEADS
GF	7	Gladiolus 'Sunburst' / Sunburst Gladiolus	3" CAL	SEE PLAN	B&B	FULL MATCHED HEADS
PC	5	Prunella 'Cleveland Select' / Cleveland Select Prunella	2.5" CAL	SEE PLAN	B&B	FULL MATCHED HEADS
IC	4	Thuja occidentalis 'GreenSpike' / GreenSpike Thuja	2.5" CAL	SEE PLAN	B&B	FULL MATCHED HEADS
SRUBS						
RN	34	Rosa 'Newly Wild' / Newly Wild Rose	24" HI	2" OC	CONT	
VC	4	Viburnum coccineum / Red Viburnum	36" HI	SEE PLAN	B&B	

### CITY OF ROCHESTER HILLS NOTES

1. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT MUST PERFECT ALL LANDSCAPE PLANNING INCLUDING BUT NOT LIMITED TO: SCHEDULING, REFLECTIONS, TREE, SHRUB PLANNING AND PARKING LOT ISLANDS AND THE FORESTRY DIVISION MUST INSPECT ALL RIGHTS-OF-WAY TO IDENTIFY ANY PLANTINGS NEW OR EXISTING THAT POSE A HAZARD TO THE SAFE USE OF THE RIGHT-OF-WAY. FORESTRY DIVISION MUST REQUIRE THE DEVELOPER TO REMOVE AND REPAIR ANY SUCH TREES.
2. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF A PUBLIC ROADWAY. SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF A PUBLIC ROADWAY. EVERGREENS AND ORNAMENTALS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF A PUBLIC ROADWAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 12' FROM THE NEAREST OVERHEAD WIRE AND AT LEAST 12' FROM THE NEAREST UNDERGROUND UTILITY.
3. NO TREE OR SHRUB MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHTS-OF-WAY AT A DISTANCE OF 12' FROM THE POINT OF INTERSECTION. NO TREE OR SHRUB MAY BE PLANTED AT A DISTANCE ALONG EACH SIDE OF 12' FROM THE POINT OF INTERSECTION.
4. PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB IN THE PUBLIC RIGHTS-OF-WAY.
5. NO SUBSTITUTION OR CHANGE OF LOCATION OF PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE DEVELOPER AND THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT.
6. THE DEVELOPER AND/OR THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO REFUSE ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS OR SPECIFICATIONS.
7. REPLACEMENT TREES MAY NOT BE PLANTED WITHIN THE DRIP LINE OF EXISTING TREES.
8. TREES MUST BE AT LEAST 5' FROM UNDERGROUND UTILITIES AND 12' FROM OVERHEAD UTILITIES.

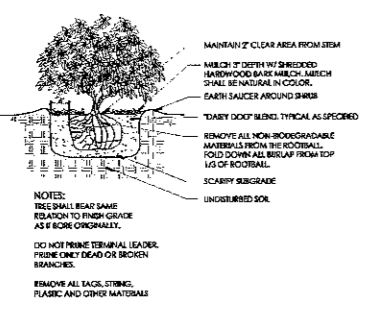
### LANDSCAPE REQUIREMENTS

EXISTING SITE ZONING: 1. INDUSTRIAL DISTRICT  
EXISTING SITE AREA: 184,340.31 S.F. OR 4.23 ACRES

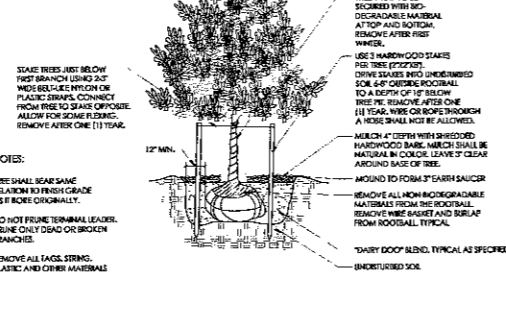
**BUFFER REQUIREMENTS**  
NO BUFFER REQUIRED DUE TO SIMILAR ADJACENT ZONING

**PARKING LOT LANDSCAPE REQUIREMENTS**  
NO ADDITIONAL PARKING IS PROPOSED, ACCORDING TO THE PARKING CALCULATIONS PROVIDED BY THE ARCHITECT THE SITE COMPLIES WITH THE CURRENT PARKING ORDINANCE.

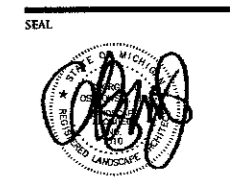
**PERIMETER LANDSCAPE**  
1 TREE PER 25 L.F. AND 1 ORNAMENTAL TREE PER 25 L.F.  
ADJACENT TO PARKING AREA NORTH OF BUILDING: 152 L.F.  
CANOPY TREES: 152 L.F. / 25 = 6 CANOPY TREES  
ORNAMENTAL: 63 L.F. / 35 = 4 ORNAMENTAL TREES  
SOUTH OF BUILDING: 63 L.F.  
CANOPY TREES: 63 L.F. / 25 = 3 CANOPY TREES  
ORNAMENTAL: 63 L.F. / 35 = 2 ORNAMENTAL TREES



SHRUB PLANTING DETAIL  
DECIDUOUS SHRUB



DECIDUOUS TREE PLANTING DETAIL



PROJECT  
ADCO Circuits  
2868 Bond Street

CLIENT  
ADCO Circuits  
2868 Bond Street  
Rochester Hills, MI 48309

Contact:  
Archie Damman  
Tel: 248.829-4666

PROJECT LOCATION  
Part of the Southwest 1/4 of Section 29 T. 3 North, R. 11 East City of Rochester Hills, Oakland County, Michigan

SHEET  
Landscape Plan



DATE	ISSUED / REVISED

DRAWN BY:  
G. Ostrowski

DESIGNED BY:  
G. Ostrowski

DATE:  
12-20-11

SCALE:  
1" = 30'

NFE JOB NO. SHEET NO.  
C035-01 L-2