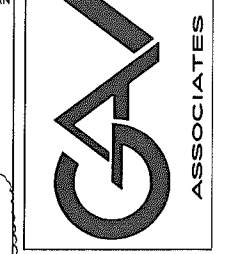


ISSUED FOR	DATE
OWNER REVIEW	12-16-04
OWNER REVIEW	12-21-04
OWNER REVIEW	12-23-04
OWNER REVIEW	3-17-10
OWNER REVIEW	3-17-12
SITE PLAN APPROVAL	12-21-12
SITE PLAN APPROVAL	6-11-13
REVISED PER CITY	4-10-13

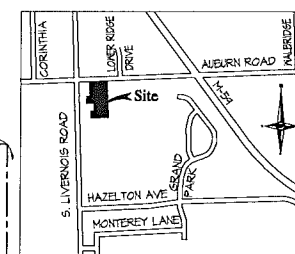
**ARCHITECTURAL DESIGN**  
**RESIDENTIAL COMMERCIAL INDUSTRIAL**  
 G.V. & ASSOCIATES, INC.  
 31471 NORTHWESTERN HWY., SUITE #2  
 FARMINGTON HILLS, MI. 48334  
 (248) 985-9101  
 FAX (248) 985-9105  
 EMAIL: GVA@GVAASSOCIATES.COM



**ADDITIONS AND RENOVATIONS TO:  
 ISLAMIC ASSOC. OF GREATER DETROIT  
 879 WEST AUBURN ROAD  
 ROCHESTER HILLS, MICHIGAN**

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 ISLAMIC ASSOC. OF GREATER DETROIT  
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 ROCHESTER HILLS, MICHIGAN**

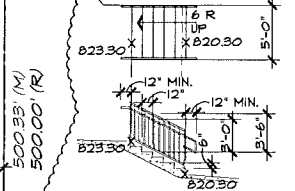
DRAWN:	DESIGNED:	CHECKED:
DS/GA	GA	GA
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FILE NAME: 09129 SP101		
JOB #: 09129		
SHEET TITLE		
PROPOSED SITE PLAN SHEET #		
SP. 101		



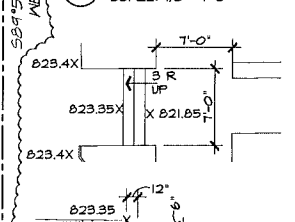
**LOCATION MAP**  
NOT TO SCALE

**SHEET INDEX:**

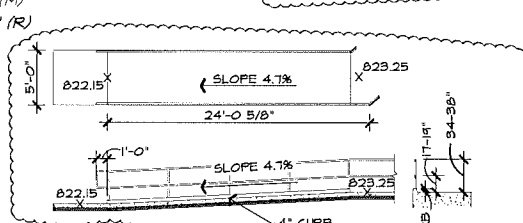
SP-101	PROPOSED SITE PLAN (DETAILS)
SP-102	PROPOSED SITE LIGHTING PLAN
A-101	PROPOSED BASEMENT FLOOR PLAN
A-102	PROPOSED FIRST FLOOR PLAN
A-103	PROPOSED SECOND FLOOR PLAN
A-201	PROPOSED ELEVATIONS
SP-1	TOPOGRAPHIC SURVEY
SP-2	TOPOGRAPHIC SURVEY
SP-3	PAVING AND GRADING PLAN
SP-4	PAVING AND GRADING PLAN
SP-5	UTILITY PLAN
L-1	TREE PRESERVATION PLAN
L-2	LANDSCAPE PLAN
L-3	LANDSCAPE NOTES & DETAILS



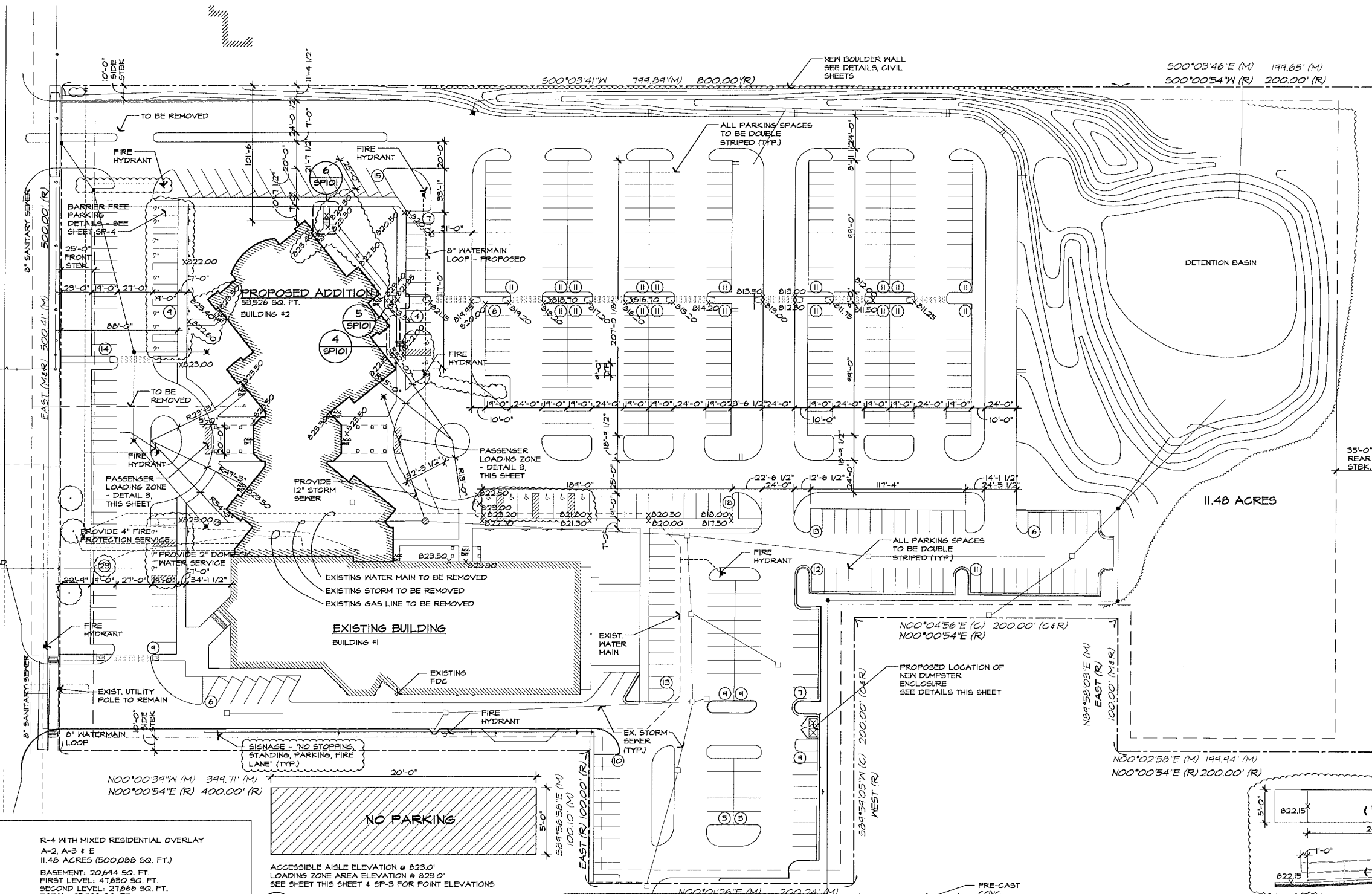
**SOUTHEAST PRAYER HALL EXIT DETAIL**  
SCALE: 1/8" = 1'-0"



**SOUTHWEST PRAYER HALL EXIT DETAIL**  
SCALE: 1/8" = 1'-0"



**SOUTH PRAYER HALL RAMP DETAIL**  
SCALE: 1/8" = 1'-0"

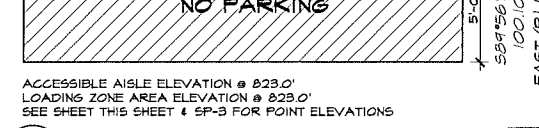


**PROJECT DATA:**  
 ZONING: R-4 WITH MIXED RESIDENTIAL OVERLAY  
 USE GROUP: A-2, A-3 & E  
 LOT AREA: 11.48 ACRES (500,088 SQ. FT.)  
 BUILDINGS GROSS AREA:  
 BASEMENT: 20,644 SQ. FT.  
 FIRST LEVEL: 47,630 SQ. FT.  
 SECOND LEVEL: 27,666 SQ. FT.  
 TOTAL: 155,940 SQ. FT.  
 4.5%

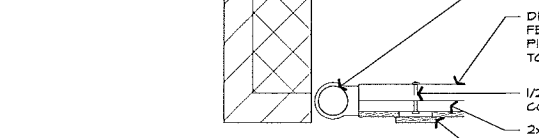
**BUILDING COVERAGE:**  
 CONSTRUCTION CLASSIFICATION: IIB (FULLY FIRE SUPPRESSED)  
 3 HOUR FIRE WALL BETWEEN BUILDINGS 1 & 2  
 MAX. BUILDING HEIGHT ALLOWED: HEIGHT LIMITATION R-4 ZONING: - 20'-0" HIGH  
 24'-6" 2 STORY BUILDING  
 MIN. FRONT SETBACK: 25'-0"  
 MIN. SIDE SETBACK: 10'-0" MIN ONE SIDE, TOTAL SIDE SETBACK 20'-0"  
 MIN. REAR SETBACK: 35'-0"

**PARKING REQUIRED**  
 PLACES OF WORSHIP = 1 PARKING SPOT/3 SEATS  
 14,065 SF. X 25% = 11,456 SF. / 10 SF. = 1,146 PEOPLE  
 1,146 PEOPLE / 3 PEOPLE/SPACE = 349 SPACES  
 TOTAL PROVIDED: 429 SPACES  
 REQUIRED NUMBER OF BARRIER-FREE SPACES = 9 SPACES FOR PARKING FROM 401-500 SPACES  
 TOTAL PROVIDED: 20 SPACES

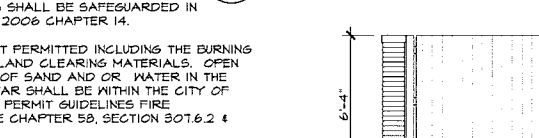
**BUILDING #1:** 42,464 S.F. GROUND FLOOR, 25,646 BUILDING #2, 53,526 S.F. GROUND FLOOR, 21,984 AREA INCREASE DUE TO FRONTAGE.  
 $A_2 = (A_1 \times H_1) + (A_2 \times H_2)$   
 $I_1 = (F/P - 0.25) \times W/30$   
 BLDG 1:  
 $A_1 = 4500; H_1 = 2$  (200% FOR AUTOMATIC SPRINKLED);  
 $F = 627; W = 30$  (FRONTAGE OPEN AREA GREATER THAN 30 FT.);  
 $P = 147; I_1 = 0.51$   
 $A_2 = 19500 + (1500 \times 54) + (1500 \times 2) = 34,055$  S.F.  
 BLDG 2:  
 $A_1 = 4500; H_1 = 2$  (200% FOR AUTOMATIC SPRINKLED);  
 $F = 653; W = 30$  (FRONTAGE OPEN AREA GREATER THAN 30 FT.);  
 $P = 147; I_1 = 0.47$   
 $A_2 = 19500 + (1500 \times 47) + (1500 \times 2) = 32,965$  S.F.



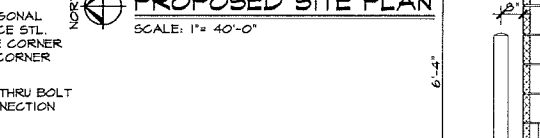
**NO PARKING**  
ACCESSIBLE AISLE ELEVATION @ 823.0'  
LOADING ZONE AREA ELEVATION @ 823.0'  
SEE SHEET THIS SHEET & SP-3 FOR POINT ELEVATIONS



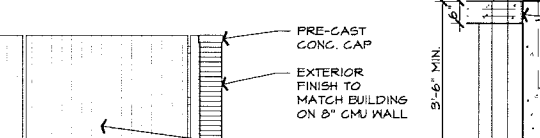
**PASSENGER LOADING**  
SCALE: 1/8" = 1'-0"



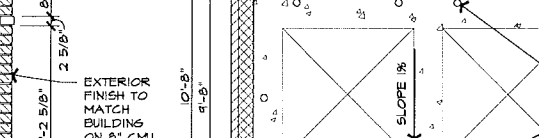
**GATE DETAIL**  
SCALE: 1" = 1'-0"



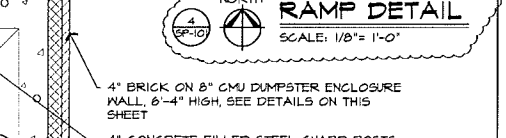
**DUMPSTER ELEVATION**  
SCALE: 1/4" = 1'-0"



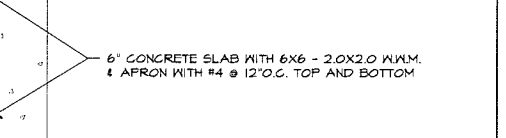
**GATE DETAIL**  
SCALE: 1/2" = 1'-0"



**DUMPSTER PLAN**  
SCALE: 1/4" = 1'-0"



**SOUTH PRAYER HALL RAMP DETAIL**  
SCALE: 1/8" = 1'-0"



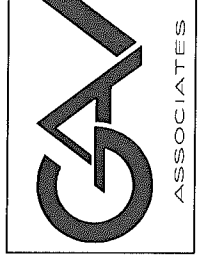
**SOUTH PRAYER HALL RAMP DETAIL**  
SCALE: 1/8" = 1'-0"

CITY FILE# 79-951.6  
 NOT TO BE USED AS CONSTRUCTION DRAWINGS

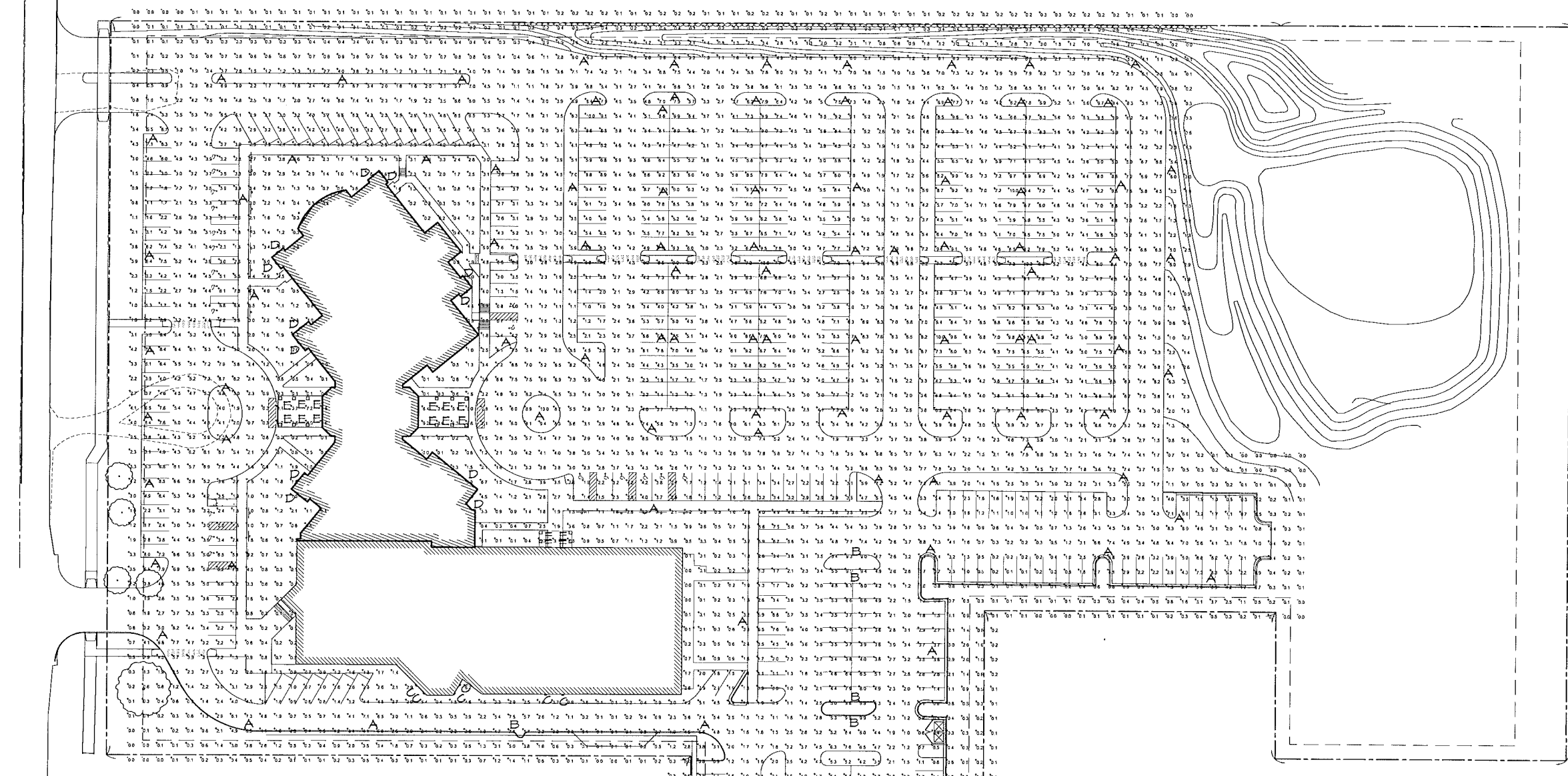
ISSUED FOR	DATE
SITE PLAN APPROVAL	12-21-2012
SITE PLAN APPROVAL	6-11-13
REVISED PER CITY	9-6-13
REVISED PER CITY	4-10-13

**ARCHITECTURAL DESIGN**  
**RESIDENTIAL COMMERCIAL INDUSTRIAL**

G.V. & ASSOCIATES, INC.  
 31471 NORTHWESTERN HWY., SUITE #2  
 FARMINGTON HILLS, MI 48334  
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**ADDITIONS AND RENOVATIONS:**  
**ISLAMIC ASSOC. OF GREATER DETROIT**  
**879 WEST AUBURN ROAD**  
**ROCHESTER HILLS, MICHIGAN**



**PROPOSED LIGHTING PLAN**  
 SCALE: 1"=40'-0"

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	3.2 fc	10.0 fc	0.0 fc	N/A	0.3:1

**LITHONIA LIGHTING**

**FEATURES & SPECIFICATIONS**

**8" LP8FN**

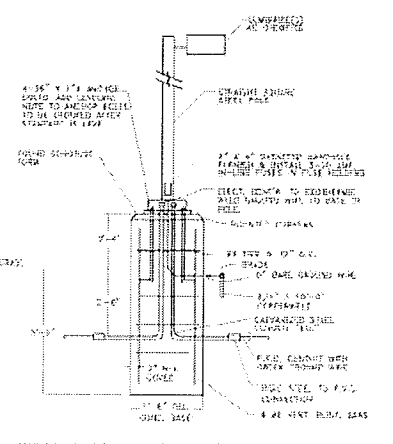
Area Luminaire, 250W MH, R4 Reflector, Full Cutoff Meets 'Nighttime Friendly' Criteria

**LITHONIA LIGHTING**

**WSR**

Architectural Sconce with Medium Throw Distribution with 10% Uplight, Clear Flat Glass Bottom Lens, Prismatic Flat Glass Top Lens

LUMINAIRE SCHEDULE					
Symbol	Label	Qty	Catalog Number	Description	Lamp
○	A	78	KAD 250M R4 (PULSE START)	Area Luminaire, 250W MH, R4 Reflector, Full Cutoff Meets 'Nighttime Friendly' Criteria	ONE (1) 250 WATT CLEAR BT28 PULSE START METAL HALIDE LAMP IN HORIZONTAL POSITION
△	B	7	UNKNOWN	Existing Area Luminaire, 20'-0" HEIGHT POLE LIGHT	ONE (1) 250 WATT
□	C	6	UNKNOWN	Existing ARCHITECTURAL SCONCE WITH MEDIUM THROW DISTRIBUTION WITH 10% UPLIGHT, CLEAR FLAT GLASS BOTTOM LENS, PRISMATIC FLAT GLASS TOP LENS	ONE 39 WATT, ELEC. BALLAST, TRIPLE TUBE COMPACT FLUORESCENT, HORIZONTAL POSITION.
□	D	12	WSR 42TRT MDU	ARCHITECTURAL SCONCE WITH MEDIUM THROW DISTRIBUTION WITH 10% UPLIGHT, CLEAR FLAT GLASS BOTTOM LENS, PRISMATIC FLAT GLASS TOP LENS	ONE 42-WATT TRIPLE TUBE COMPACT FLUORESCENT, HORIZONTAL POSITION.
○	E	20	LP8FN 1/42TRT MVOLT 8L4	8" LENSED DOWNLIGHT WITH WHITE SPILAY, FRESNEL LENS	ONE 42-WATT TRIPLE TUBE COMPACT FLUORESCENT, VERTICAL BASE-UP POSITION



**SITE LIGHTING FIXTURE SCHEDULE**

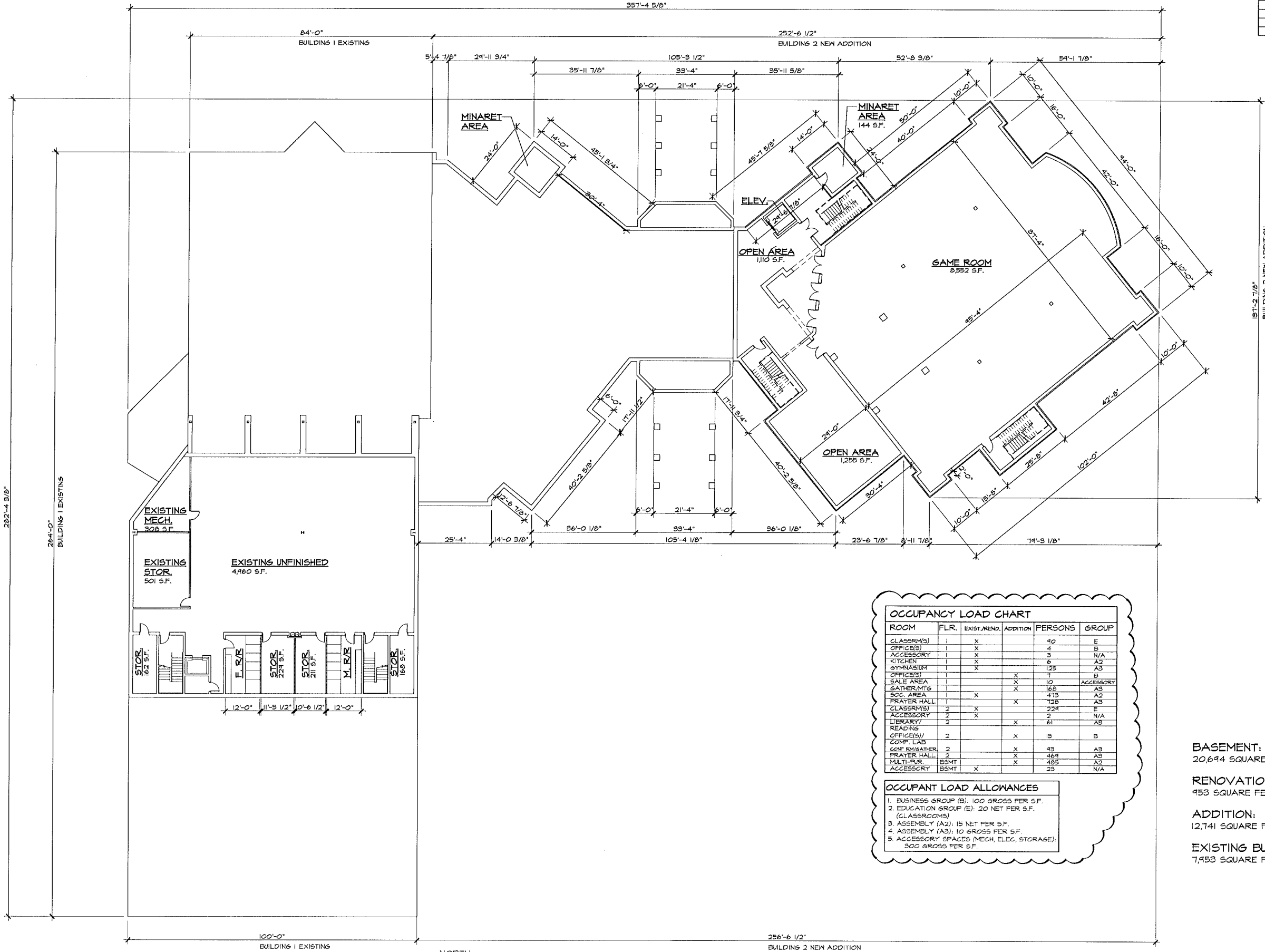
100% LIGHTING FIXTURE SCHEDULE TO BE PROVIDED TO THE CLIENT. THE CLIENT SHALL BE RESPONSIBLE FOR PROVIDING THE LAMP. THE LAMP SHALL BE PROVIDED TO THE CLIENT BY THE CLIENT. THE CLIENT SHALL BE RESPONSIBLE FOR PROVIDING THE LAMP. THE LAMP SHALL BE PROVIDED TO THE CLIENT BY THE CLIENT.

CITY FILE# 79-951.6  
 NOT TO BE USED AS CONSTRUCTION DRAWINGS

**PROPOSED WALL MOUNTED FIXTURE TYPE "C"**      **PROPOSED WALL MOUNTED FIXTURE TYPE "A"**

DRAWN:	DESIGNED:	CHECKED:
	SA	
SCALE: 1"=40'-0"		
FILE NAME:		
JOB #: 04129		
SHEET TITLE		
PROPOSED LIGHTING PLAN		
SHEET #		
SP.102		

ISSUED FOR	DATE	ISSUED FOR	DATE
REVISED PER CITY	4-10-13	OWNER REVIEW	12-16-04
		OWNER REVIEW	12-21-04
		OWNER REVIEW	12-23-04
		OWNER REVIEW	3-17-10
		OWNER REVIEW	4-20-11
		OWNER REVIEW	8-11-12
		CITY PRE REVIEW	10-15-12
		SITE PLAN APPROVAL	12-31-2012
		SITE PLAN APPROVAL	6-11-13
		REVISED PER CITY	8-6-13



**OCCUPANCY LOAD CHART**

ROOM	FLR.	EXIST./RENO.	ADDITION	PERSONS	GROUP
CLASSRM(S)	1	X		40	E
OFFICE(S)	1	X		4	B
ACCESSORY	1	X		3	N/A
KITCHEN	1	X		6	A2
GYMNASIUM	1	X		125	A3
OFFICE(S)	1		X	7	B
SALE AREA	1		X	10	ACCESSORY
GATHER.MTS	1		X	168	A3
SOC. AREA	1	X		475	A2
PRAYER HALL	1		X	725	A3
CLASSRM(S)	2	X		324	E
ACCESSORY	2	X		2	N/A
LIBRARY	2		X	61	A3
READING	2		X	19	B
COMP. LAB	2		X	49	A3
CONF. RM/GATHER	2		X	464	A3
PRAYER HALL	2		X	485	A2
MULTI-PUR.	BSMT		X	23	N/A
ACCESSORY	BSMT	X		23	N/A

- OCCUPANT LOAD ALLOWANCES**
- BUSINESS GROUP (B): 100 GROSS PER S.F.
  - EDUCATION GROUP (E): 20 NET PER S.F. (CLASSROOMS)
  - ASSEMBLY (A2): 15 NET PER S.F.
  - ASSEMBLY (A3): 10 GROSS PER S.F.
  - ACCESSORY SPACES (MECH, ELEC, STORAGE): 300 GROSS PER S.F.

**BASEMENT:**  
20,694 SQUARE FEET TOTAL

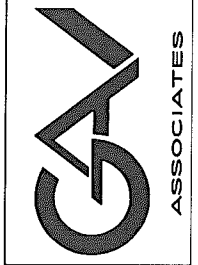
**RENOVATION:**  
453 SQUARE FEET

**ADDITION:**  
12,741 SQUARE FEET

**EXISTING BUILDING:**  
7,953 SQUARE FEET

**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@GAVASSOCIATES.COM



ADDITIONS AND RENOVATIONS TO:  
ISLAMIC ASSOC. OF GREATER DETROIT  
879 WEST AUBURN ROAD  
ROCHESTER HILLS, MICHIGAN

DRAWN:	DESIGNED:	CHECKED:
DS/GA	GA	GA

SCALE: 1/16" = 1'-0"

FILE NAME: 09129 A-1

JOB #: 09129

SHEET TITLE  
PROPOSED  
BASEMENT  
FLOOR PLAN  
SHEET #

A.101

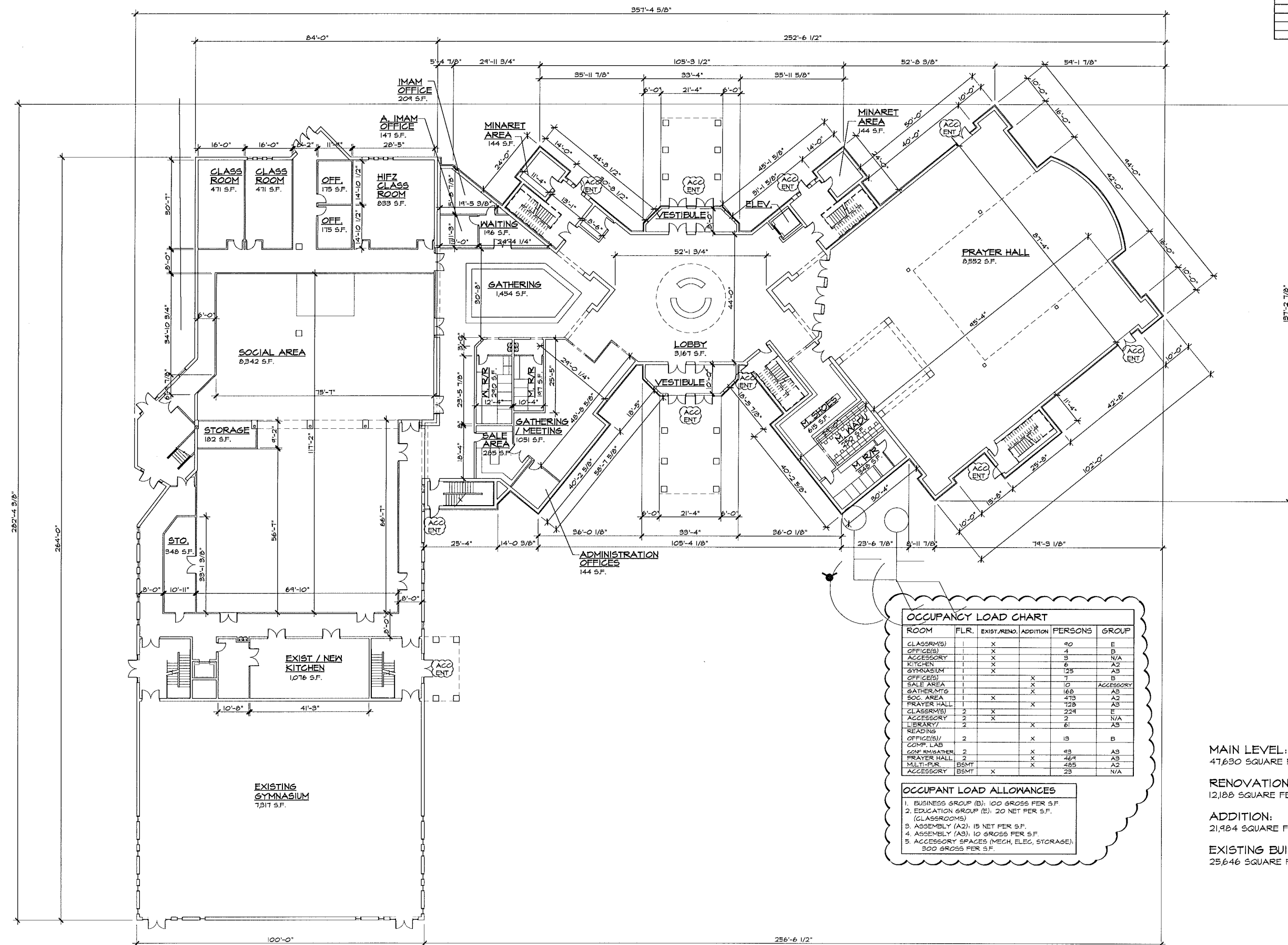


**PROPOSED BASEMENT FLOOR PLAN**

SCALE: 1/16" = 1'-0"

CITY FILE# 79-951.6  
NOT TO BE USED AS  
CONSTRUCTION DRAWINGS

ISSUED FOR	DATE	ISSUED FOR	DATE
REVISED PER CITY	9-10-13	OWNER REVIEW	12-16-04
		OWNER REVIEW	12-21-04
		OWNER REVIEW	12-23-04
		OWNER REVIEW	3-17-10
		OWNER REVIEW	4-20-11
		OWNER REVIEW	3-17-12
		CITY PRE REVIEW	10-18-12
		SITE PLAN APPROVAL	12-21-2012
		SITE PLAN APPROVAL	6-11-13
		REVISED PER CITY	8-6-13



**OCCUPANCY LOAD CHART**

ROOM	FLR.	EXIST./RENO.	ADDITION	PERSONS	GROUP
CLASSRM(S)	1	X		90	E
OFFICE(S)	1	X		4	B
ACCESSORY	1	X		3	N/A
KITCHEN	1	X		6	A2
GYMNASIUM	1	X		125	A3
OFFICE(S)	1		X	7	B
SALE AREA	1		X	10	ACCESSORY
GATHERMGS	1		X	168	A3
SOC. AREA	1	X		475	A2
PRAYER HALL	1		X	128	A3
CLASSRM(S)	2	X		224	E
ACCESSORY	2	X		2	N/A
LIBRARY	2		X	61	A3
READING	2		X	13	B
OFFICE(S)/	2		X	13	B
COMP. LAB	2		X	43	A3
CNF. BATH	2		X	46	A3
PRAYER HALL	2		X	485	A2
MULTI-PUR.	B5MT		X	485	A2
ACCESSORY	B5MT	X		23	N/A

- OCCUPANT LOAD ALLOWANCES**
- BUSINESS GROUP (B): 100 GROSS PER S.F.
  - EDUCATION GROUP (E): 20 NET PER S.F. (CLASSROOMS)
  - ASSEMBLY (A2): 15 NET PER S.F.
  - ASSEMBLY (A3): 10 GROSS PER S.F.
  - ACCESSORY SPACES (MECH, ELEC, STORAGE): 500 GROSS PER S.F.

**MAIN LEVEL:**  
47,630 SQUARE FEET TOTAL

**RENOVATION:**  
12,188 SQUARE FEET

**ADDITION:**  
21,984 SQUARE FEET

**EXISTING BUILDING:**  
25,646 SQUARE FEET



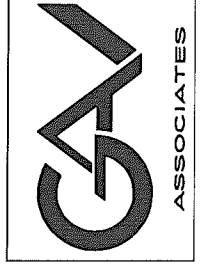
**PROPOSED FIRST FLOOR PLAN**

SCALE: 1/16" = 1'-0"

CITY FILE# 79-951.6  
NOT TO BE USED AS  
CONSTRUCTION DRAWINGS

**ARCHITECTURAL DESIGN**  
RESIDENTIAL  
COMMERCIAL  
INDUSTRIAL

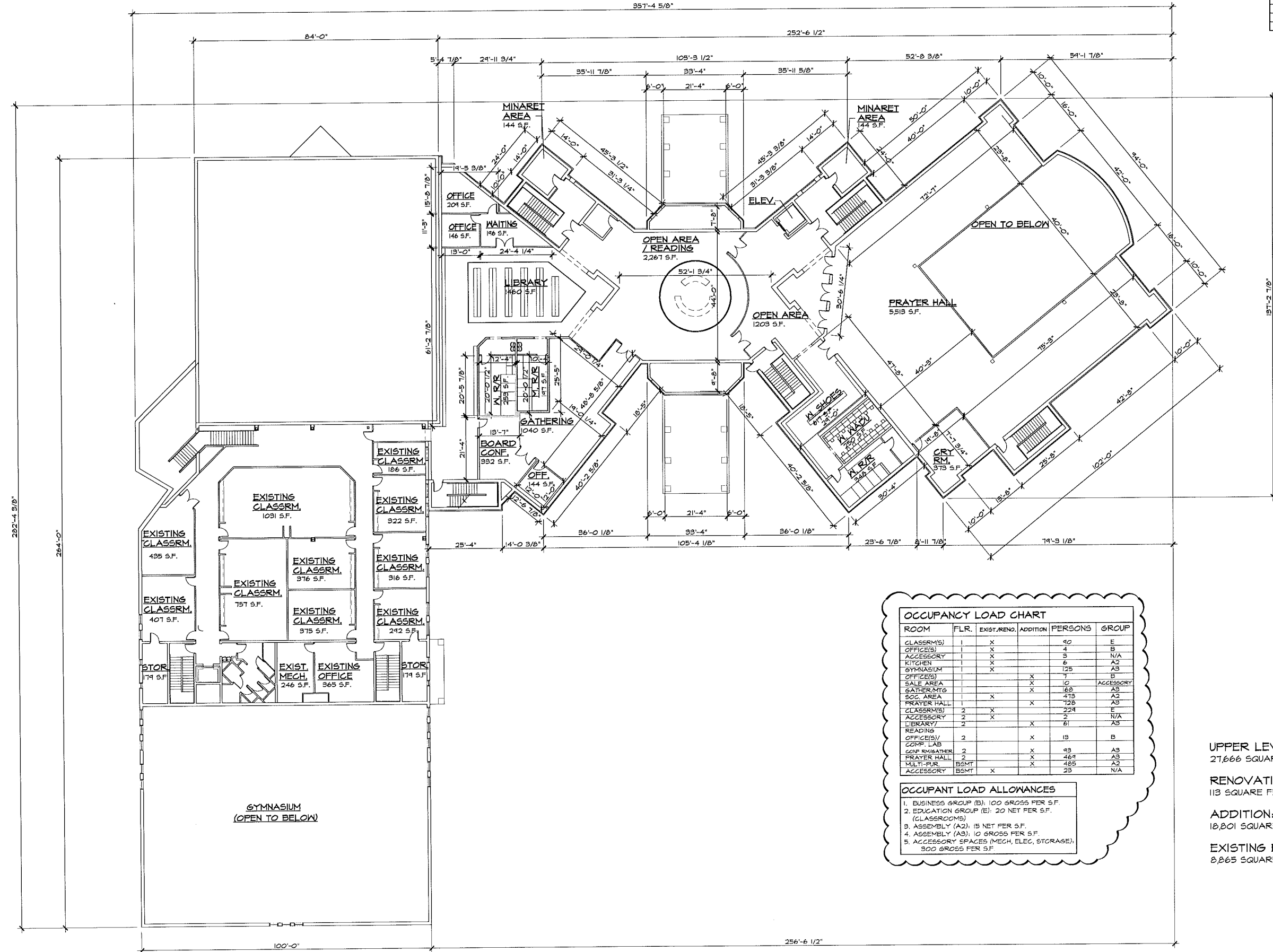
G.A.V. & ASSOCIATES, INC.  
31471 NORTHWESTERN HWY., SUITE #2  
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ADDITIONS AND RENOVATIONS TO:  
ISLAMIC ASSOC. OF GREATER DETROIT  
879 WEST AUBURN ROAD  
ROCHESTER HILLS, MICHIGAN

DRAWN:	DESIGNED:	CHECKED:
DS/GA	GA	GA
SCALE: 1/16" = 1'-0"		
FILE NAME: 09129 A-2		
JOB #: 09129		
SHEET TITLE		
PROPOSED FIRST FLOOR PLAN SHEET #		
A.102		

ISSUED FOR	DATE	ISSUED FOR	DATE
REVISED PER CITY	9-10-13	OWNER REVIEW	12-16-04
		OWNER REVIEW	12-21-04
		OWNER REVIEW	12-23-04
		OWNER REVIEW	3-17-10
		OWNER REVIEW	4-20-11
		OWNER REVIEW	3-17-12
		CITY PRE REVIEW	10-18-12
		SITE PLAN APPROVAL	12-21-2012
		SITE PLAN APPROVAL	6-11-13
		REVISED PER CITY	8-6-13



**OCCUPANCY LOAD CHART**

ROOM	FLR.	EXIST./RENO.	ADDITION	PERSONS	GROUP
CLASSRM(S)	1	X		90	E
OFFICE(S)	1	X		4	B
ACCESSORY	1	X		5	N/A
KITCHEN	1	X		6	A2
GYNASIUM	1	X		125	A3
OFFICE(S)			X	7	B
SALE AREA			X	10	ACCESSORY
GATHERING			X	168	A3
SOCC. AREA		X		415	A2
PRAYER HALL	1		X	128	A3
CLASSRM(S)	2	X		224	E
ACCESSORY	2	X		2	N/A
LIBRARY	2		X	61	A3
READING			X		
OFFICE(S)/	2		X	15	B
CONF. LAB			X		
CONF. ENHANCER	2		X	43	A3
PRAYER HALL	2		X	461	A3
MULTI-PLR	BSMT		X	485	A2
ACCESSORY	BSMT	X		25	N/A

**OCCUPANT LOAD ALLOWANCES**

- BUSINESS GROUP (B): 100 GROSS PER S.F.
- EDUCATION GROUP (E): 20 NET PER S.F. (CLASSROOMS)
- ASSEMBLY (A2): 15 NET PER S.F.
- ASSEMBLY (A3): 10 GROSS PER S.F.
- ACCESSORY SPACES (MECH, ELEC, STORAGE): 500 GROSS PER S.F.

UPPER LEVEL:  
27,666 SQUARE FEET TOTAL

RENOVATION:  
113 SQUARE FEET

ADDITION:  
10,001 SQUARE FEET

EXISTING BUILDING:  
8,865 SQUARE FEET



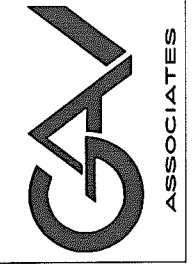
**PROPOSED SECOND FLOOR PLAN**

SCALE: 1/16" = 1'-0"

CITY FILE# 79-951.6  
NOT TO BE USED AS  
CONSTRUCTION DRAWINGS

**ARCHITECTURAL DESIGN**  
RESIDENTIAL  
COMMERCIAL  
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ADDITIONS AND RENOVATIONS TO:  
ISLAMIC ASSOC. OF GREATER DETROIT  
879 WEST AUBURN ROAD  
ROCHESTER HILLS, MICHIGAN

DRAWN	DESIGNED	CHECKED
DS/GA	GA	GA

SCALE: 1/16" = 1'-0"

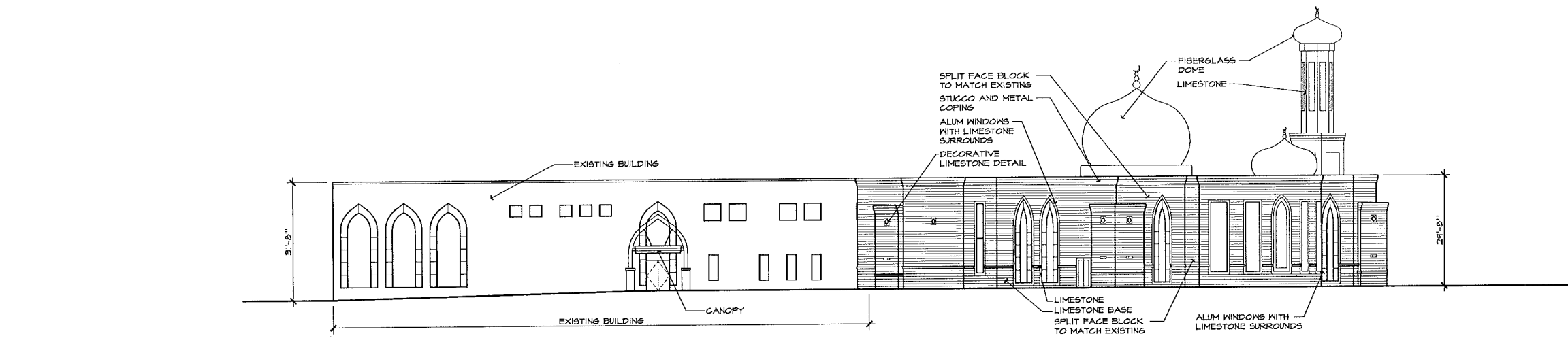
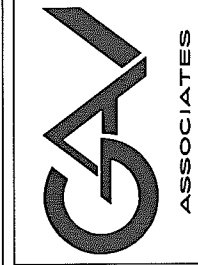
FILE NAME: 09129 A-3

JOB #: 09129

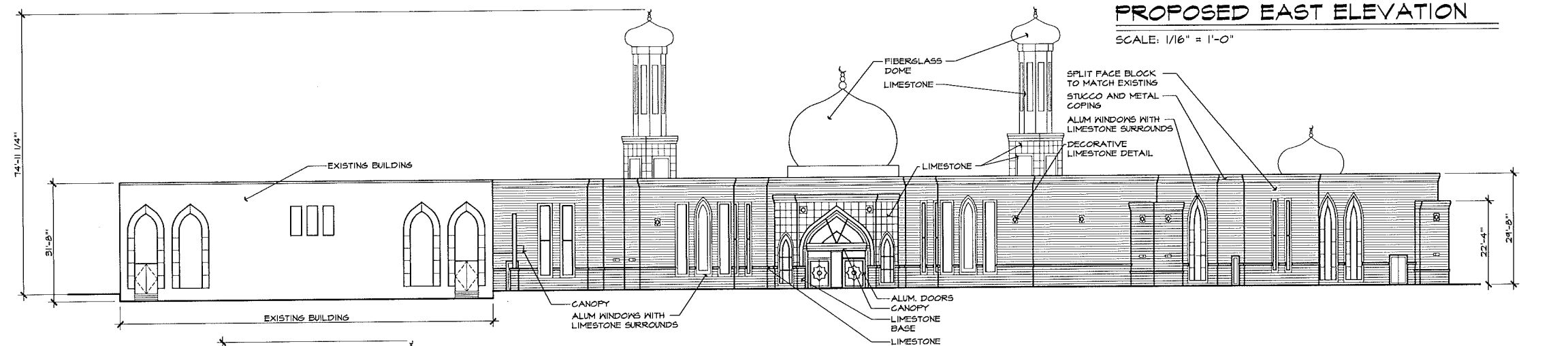
SHEET TITLE  
PROPOSED  
SECOND  
FLOOR PLAN  
SHEET #  
**A.103**

ISSUED FOR	DATE
OWNER REVIEW	12-16-04
OWNER REVIEW	12-21-04
OWNER REVIEW	12-23-04
OWNER REVIEW	3-17-10
OWNER REVIEW	4-20-11
OWNER REVIEW	3-17-12
SITE PLAN APPROVAL	12-21-2012
SITE PLAN APPROVAL	6-11-13
REVISED PER CITY	8-6-13
REVISED PER CITY	4-10-13

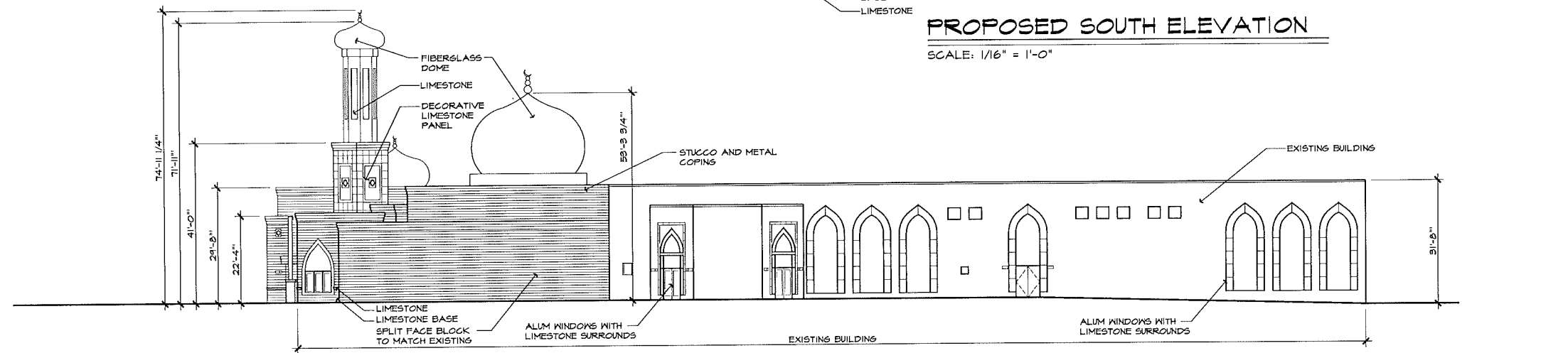
**ARCHITECTURAL DESIGN**  
**RESIDENTIAL COMMERCIAL INDUSTRIAL**  
 G.A.V. & ASSOCIATES, INC.  
 31471 NORTHWESTERN HWY., SUITE #2  
 FARMINGTON HILLS, MI 48334  
 (248) 985-9101  
 FAX (248) 985-9105  
 EMAIL: GAV@GAVASSOCIATES.COM



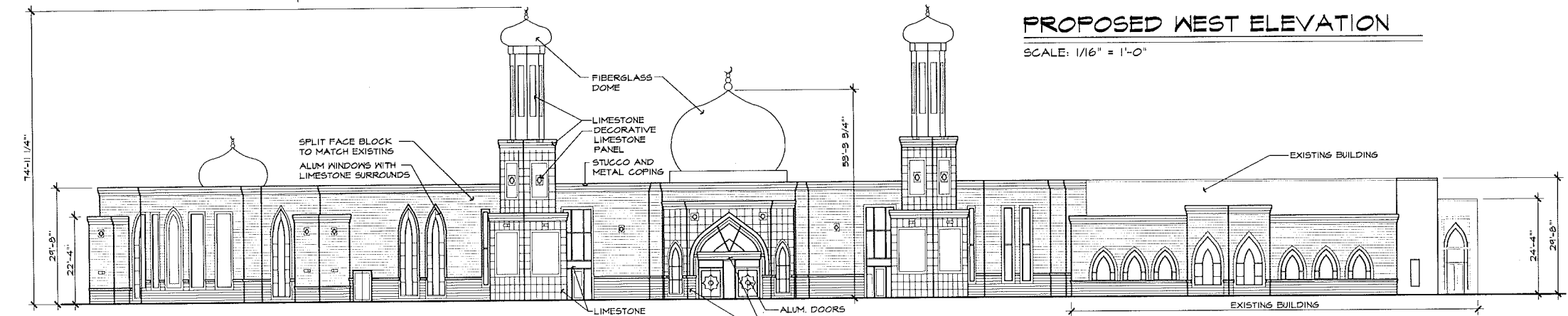
**PROPOSED EAST ELEVATION**  
 SCALE: 1/16" = 1'-0"



**PROPOSED SOUTH ELEVATION**  
 SCALE: 1/16" = 1'-0"



**PROPOSED WEST ELEVATION**  
 SCALE: 1/16" = 1'-0"



**PROPOSED NORTH ELEVATION**  
 SCALE: 1/16" = 1'-0"

CITY FILE# 79-951.6  
 NOT TO BE USED AS  
 CONSTRUCTION DRAWINGS

ADDITIONS AND RENOVATIONS TO:  
 ISLAMIC ASSOC. OF GREATER DETROIT  
 879 WEST AUBURN ROAD  
 ROCHESTER HILLS, MICHIGAN

DRAWN:	DESIGNED:	CHECKED:
DS/GA	GA	GA

SCALE: 1/16" = 1'-0"

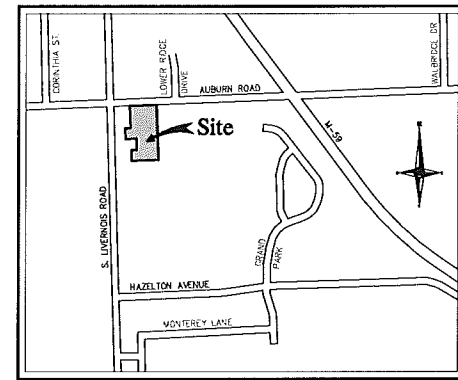
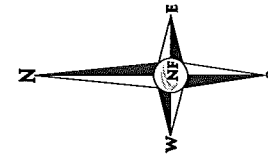
FILE NAME: 09129 A-4

JOB #: 09129

SHEET TITLE  
 PROPOSED ELEVATIONS

SHEET #  
**A.201**

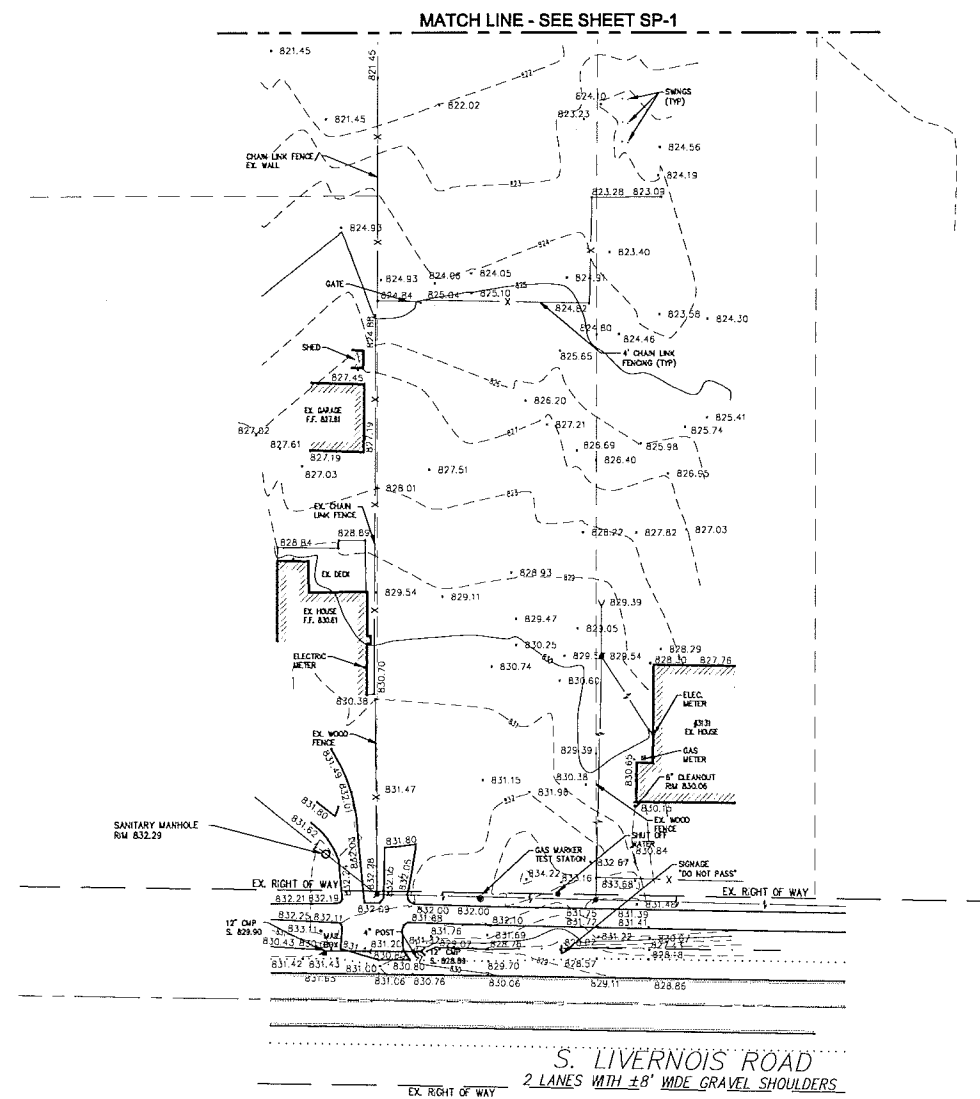




Location Map  
N.T.S.

**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

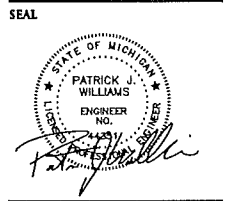


**LEGEND**

	EXISTING SANITARY SEWER
	EXISTING SAN. CLEAN OUT
	EXISTING WATER MAIN
	EXISTING STORM SEWER
	EX. R.Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN

**TOPOGRAPHIC 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 HAS BEEN FURNISHED TO THE SURVEYOR BY THE OWNER.

**SOIL CLASSIFICATIONS**  
THE EXISTING SITE IS COMPRISED OF:  
10B...MARLETTE SANDY LOAM, 1 TO 6 PERCENT SLOPES.  
11B...CAPAC SANDY LOAM, 5 TO 4 PERCENT SLOPES.  
16B...FOX SANDY LOAM, 1 TO 6 PERCENT SLOPES.  
PER THE USDA - NRCS COUNTY WEB SOIL SURVEY



PROJECT  
Islamic Association of  
Greater Detroit

CLIENT  
GAV Associates  
31471 Northwestern Hwy.  
Suite 2  
Farmington Hills, MI 48334  
Contact:  
Mr. Ghassan Abdelnour  
Ph: 248-985-9101  
Fax: 248-985-9105

PROJECT LOCATION  
Part of the NW 1/4  
of Section 34  
City of Rochester Hills,  
Oakland County, Michigan

SHEET  
Topographic Survey



DATE	ISSUED / REVISED
06-11-13	Site Plan Approval
08-13-13	Revised per City
09-10-13	Revised per City

DRAWN BY:  
RJJ/Others  
DESIGNED BY:  
-  
APPROVED BY:  
P. Williams  
DATE:  
December 21, 2012

SCALE 1" = 40'  
NFE JOB NO. SHEET NO.  
G951 SP-2

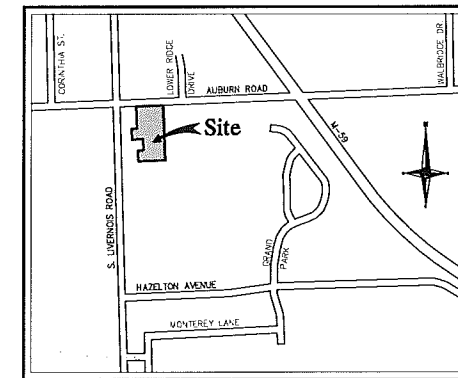
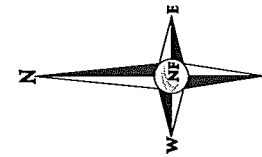
**LEGAL DESCRIPTION PROVIDED**  
819 & 879 AUBURN ROAD, ROCHESTER HILLS, MI 48307-4901; PARCEL IDS# 70-15-34-101-045 AND 70-15-34-101-009 (LOT 25) 70-15-34-101-010 (LOT 26) 70-15-34-101-011 (LOT 27)

PART OF THE NORTHWEST 1/4 OF SECTION 34, T3N-R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN; DESCRIBED AS PART OF SUPERVISOR'S PLAT NO. 5, A RECORDED PLAT, IN LIBER 6 PAGE 53, OAKLAND COUNTY RECORDS, BEING THE EAST 500 FEET OF LOTS 9 AND 10, ALSO THE EAST 200 FEET OF LOTS 13 AND 14 AND ALL OF LOTS 23 THROUGH 27 OF SAID PLAT.

All together described as: Beginning at the Northwest Corner of Lot 23 of said plat; thence East along the North line of said Lots 23, 24, 25, 26 and 27 of Supervisor's Plat No. 5 a distance of 500.41 feet (previously recorded 500.00 feet) to the Northeast Corner of said Lot 27; thence S00°03'41"W along the East line of Lot 27 a distance of 799.89 feet (previously recorded 800.00 feet) to the Southeast corner of said Lot 27; thence S00°03'46"E 199.65 feet (previously recorded S00°00'54"W 200.00 feet) along the East line of Lots 9 and 10 of said Supervisor's Plat No. 5 to the Southeast corner of Lot 9; thence S89°58'07"W (previously recorded West) along the South line of said Lot 9 a distance of 500.35 feet (previously recorded 500.00 feet); thence leaving said South line of Lot 9 N00°02'58"E 199.94 feet (previously recorded N00°00'54"E 200.00 feet) to a point on the North line of said Lot 10 of Supervisor's Plat No. 5; thence N89°58'03"E (previously recorded East) along the North Line of Lot 10 a distance of 100.00 feet to the Southwest corner said Lot 24; thence N00°04'56"E (previously recorded N00°00'54"E) along the West line of said Lot 24 a distance of 200.00 feet to the Southeast corner of said Lot 13; thence S89°59'05"W (previously recorded West) along the South line of said Lot 13 a distance of 200.00 feet; thence leaving said South line of Lot 13 N00°01'26"E 200.24 feet (previously recorded N00°00'54"E 200.00 feet) to a point on the North line of Lot 14 of said Supervisor's Plat No. 5, said point being the Southwest corner of Lot 22 of said plat; thence S89°58'58"E 100.10 feet (previously recorded East 100.00 feet) along the North line of Lot 14 to the Southwest corner of Lot 23; thence N00°00'39"W 399.71 feet (previously recorded N00°00'54"E 400.00 feet) along the West line of Lot 23 to the Point of Beginning. Containing 11.48 acres of land more or less and being subject to any easements, right of ways or restrictions of record.

CITY FILE #79-951.6  
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CONSTRUCTION DRAWINGS



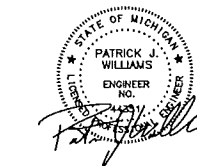


Location Map  
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SEAL



PROJECT  
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Suite 2  
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Contact:  
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Ph: 248-985-9101  
Fax: 248-985-9105

PROJECT LOCATION  
Part of the NW 1/4  
of Section 34  
City of Rochester Hills,  
Oakland County, Michigan

SHEET  
Paving and Grading Plan



Know what's below  
Call before you dig.

DATE ISSUED / REVISED  
06-11-13 Site Plan Approval  
08-13-13 Revised per City  
09-10-13 Revised per City

DRAWN BY:  
**A. Wiseman**

DESIGNED BY:  
**A. Wiseman**

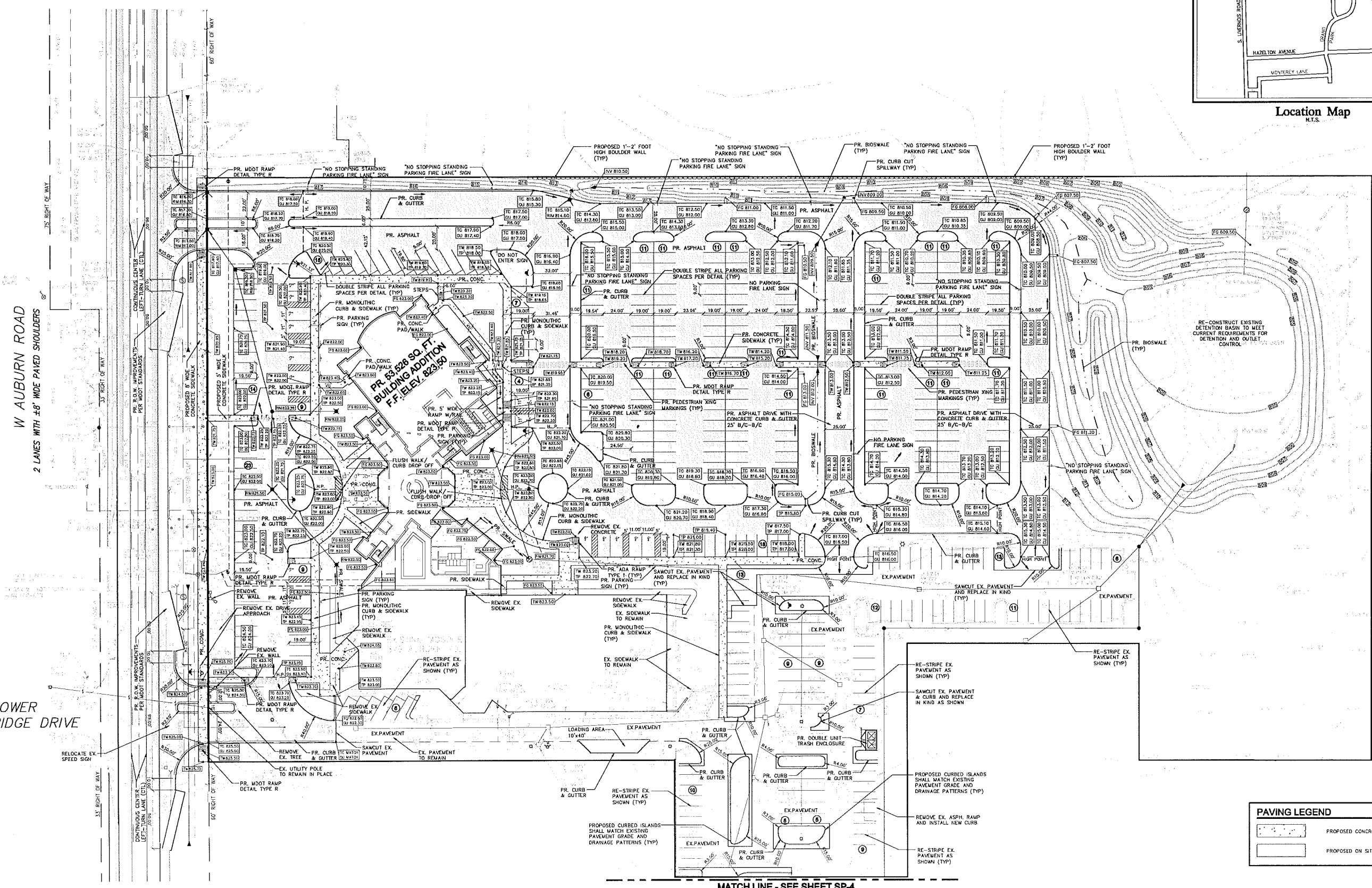
APPROVED BY:  
P. Williams

DATE:  
December 21, 2012

SCALE: 1" = 40'

CITY FILE #79-951.6  
NFE JOB NO. SHEET NO.  
G951 SP-3

PAVING LEGEND	
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ON SITE ASPHALT



MATCH LINE - SEE SHEET SP-4

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. 1100I, 20AA; ASPHALT CEMENT PENETRATION GRADE 85-100; BOND COAT - MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD; MAXIMUM 2 INCH LIFT.

PAVEMENT BASE SHALL BE COMPACTED TO 98% 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, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT FOURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-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, 1993, 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 SECURED 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.

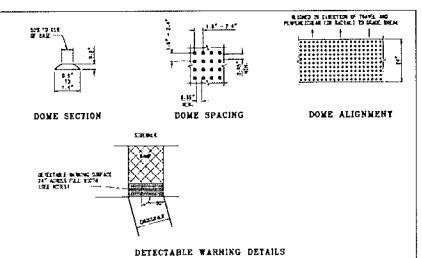
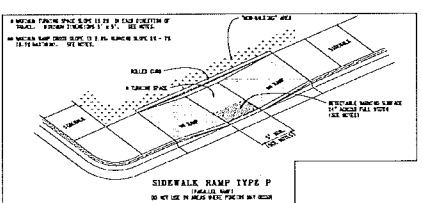
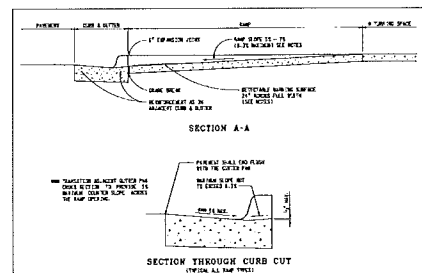
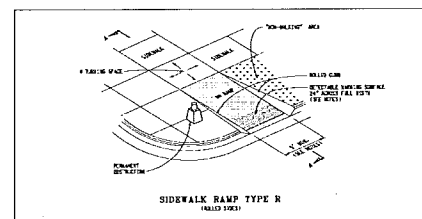
EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

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 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.

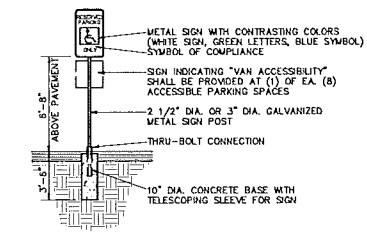
FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES THICK TO 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

**MDOT SIDEWALK RAMP R-28-H DETAILS**

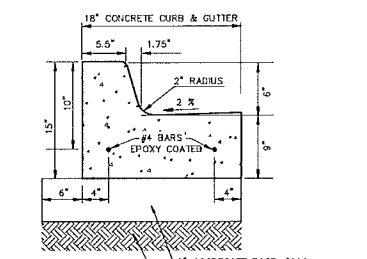


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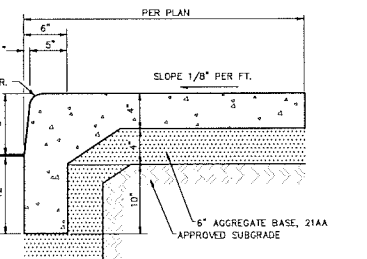
- DETECTABLE WARNING DETAILS SHALL BE INSTALLED AT ALL INTERSECTIONS, CROSSINGS, AND TRANSITIONS WHERE A CHANGE IN SURFACE TEXTURE OR MATERIAL OCCURS.
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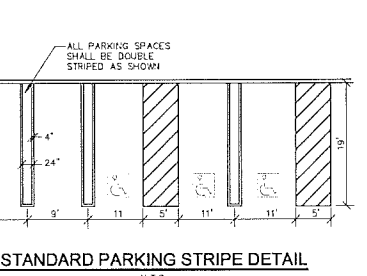
Provide (1) for each accessible parking space



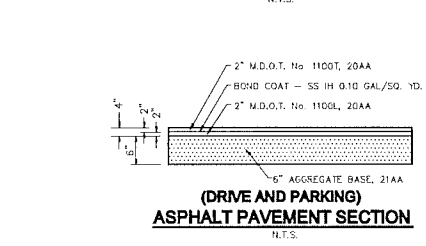
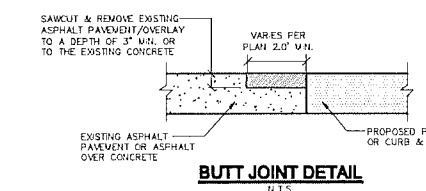
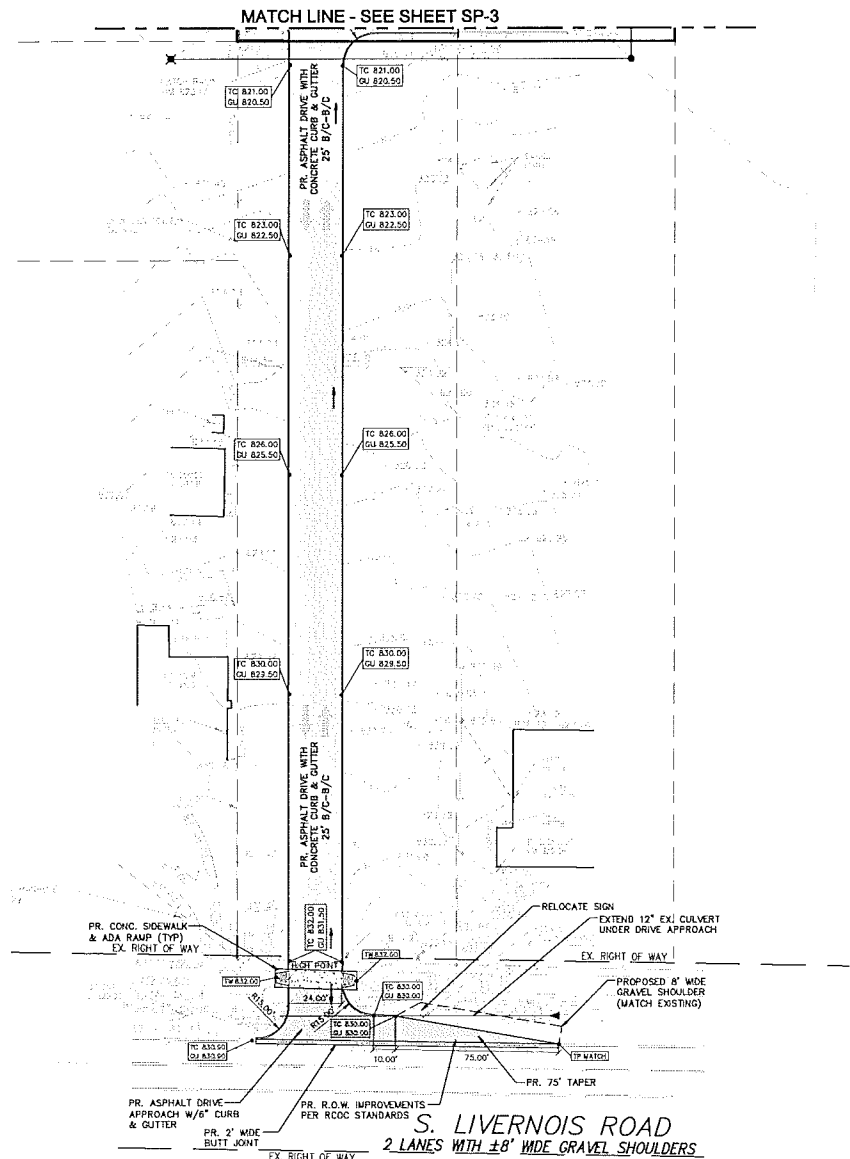
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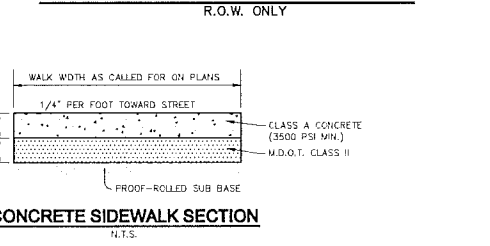
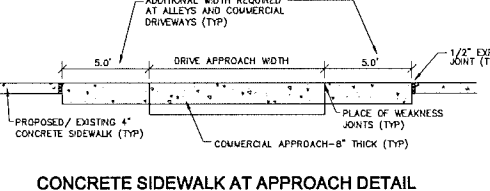
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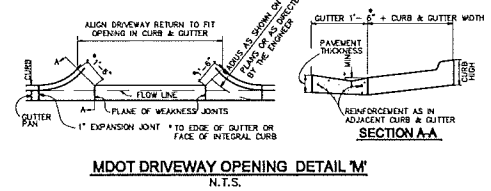
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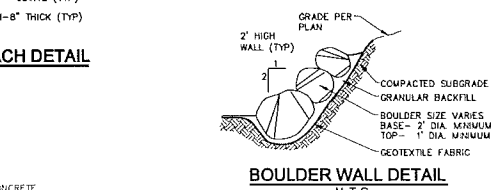
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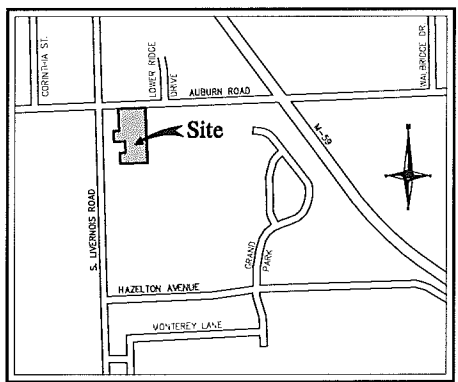
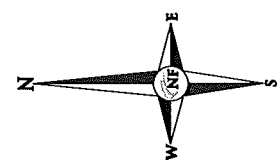
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N.T.S.



N.T.S.



N.T.S.

**LEGEND**

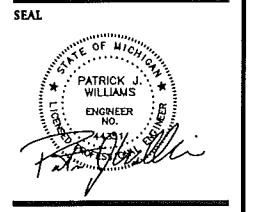
CLEAN-OUT	MANHOLE	EXISTING SANITARY SEWER
HYDRANT	GATE VALVE	EXISTING WATER MAIN
INLET	RYER	EXISTING STORM SEWER
MANHOLE	CH	EXISTING BURIED CABLES
UTILITY POLE	UTILITY POLE	EXISTING GAS MAIN
EXISTING LIGHT POLE	EXISTING SIGN	EXISTING OVERHEAD LINES
C.C.	MANHOLE	PR. SANITARY SEWER
HYDRANT	GATE VALVE	PROPOSED WATER MAIN
INLET	RYER	PROPOSED STORM SEWER
MANHOLE	CH	PROPOSED SAND BACKFILL
COMPACT TO 98% MAX. DENSITY		PR. TOP OF CURB ELEVATION
TC 800.00		PROPOSED CUTTER ELEVATION
CU 800.00		PR. TOP OF WALK ELEVATION
TW 800.00		PR. TOP OF PAVEMENT ELEV.
FC 800.00		PROPOSED FINISH GRADE
600		PROPOSED CONTOUR
		PR. DRAINAGE DIRECTION
		PROPOSED INLET FILTER
		DRAINAGE AREA LIMITS
		PROPOSED S/LT FENCE
		LIMITS OF SOL DISRUPTION

**PAVING LEGEND**

PROPOSED CONCRETE PAVEMENT
PROPOSED ON SITE ASPHALT



**NOWAK & FRAUS ENGINEERS**  
4677 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL (248) 332-7931  
FAX (248) 332-8257



**PROJECT**  
Islamic Association of Greater Detroit

**CLIENT**  
GAV Associates  
31471 Northwestern Hwy.  
Suite 2  
Farmington Hills, MI 48334  
Contact:  
Mr. Ghassan Abdelnour  
Ph: 248-985-9101  
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**PROJECT LOCATION**  
Part of the NW 1/4  
of Section 34  
City of Rochester Hills,  
Oakland County, Michigan

**SHEET**  
Paving and Grading Plan



DATE	ISSUED / REVISED
06-11-13	Site Plan Approval
08-13-13	Revised per City
09-10-13	Revised per City

**DRAWN BY:**  
A. Wiseman  
**DESIGNED BY:**  
A. Wiseman  
**APPROVED BY:**  
P. Williams  
**DATE:**  
December 21, 2012

**SCALE:** 1" = 40'  
40 20 0 20 40 60  
**NFE JOB NO. G951** **SHEET NO. SP-4**

CITY FILE #79-951.6  
NOT TO BE USED AS CONSTRUCTION DRAWINGS

SEAL



PROJECT  
 Islamic Association of  
 Greater Detroit

CLIENT  
 GAV Associates  
 31471 Northwestern Hwy.  
 Suite 2  
 Farmington Hills, MI 48334  
 Contact:  
 Mr. Ghassan Abdelnour  
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PROJECT LOCATION  
 Part of the NW 1/4  
 of Section 34  
 City of Rochester Hills,  
 Oakland County, Michigan

SHEET  
 Utility Plan



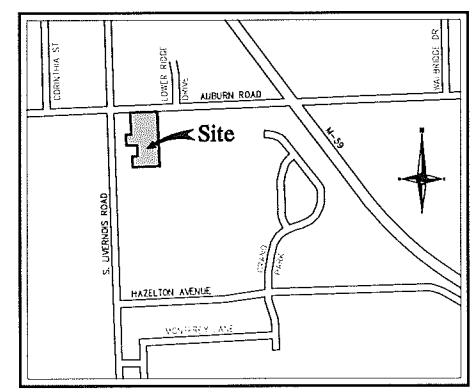
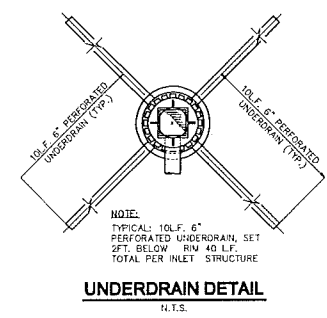
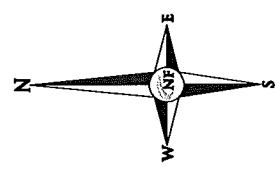
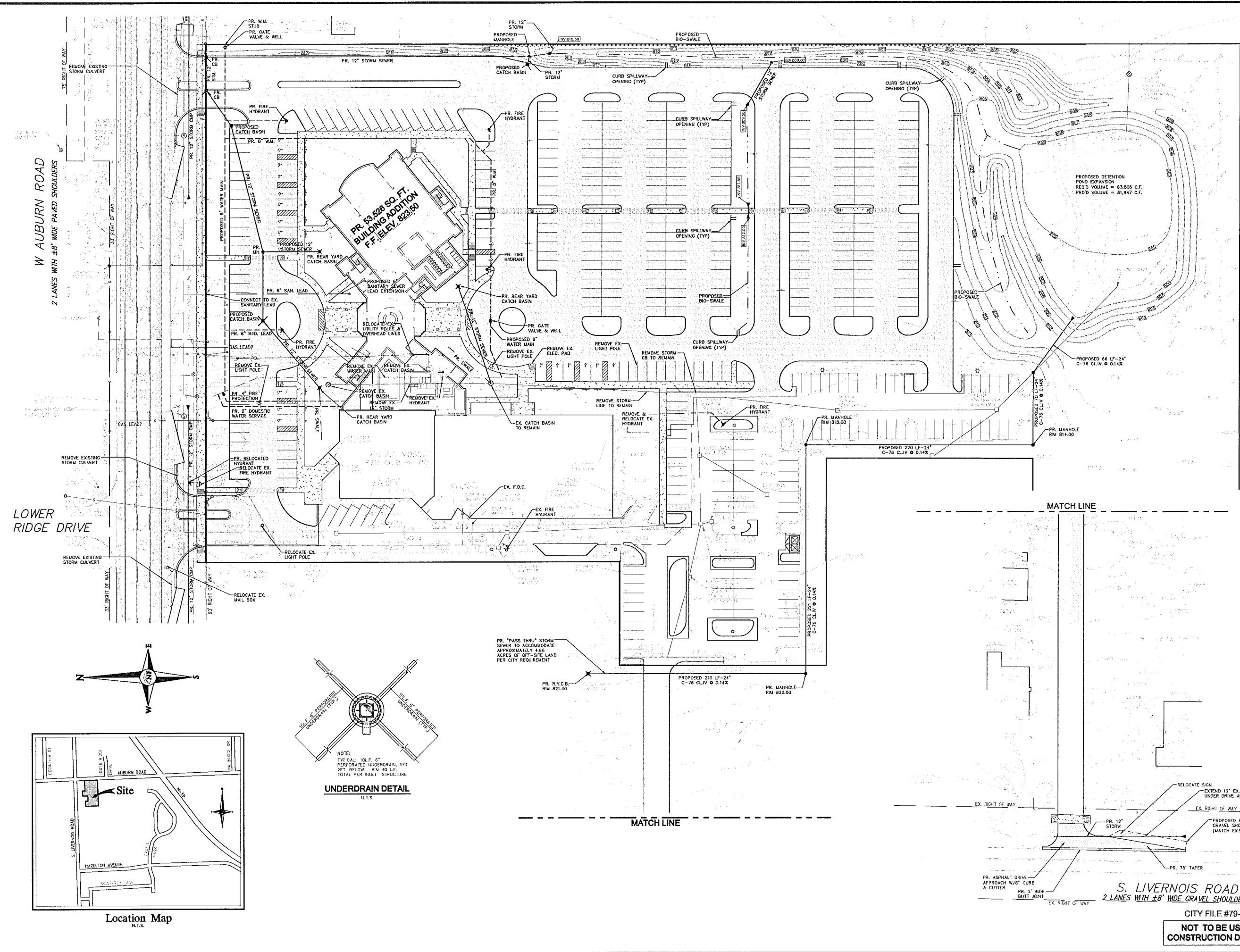
DATE	ISSUED / REVISED
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09-10-13	Revised per City

DRAWN BY:  
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 DESIGNED BY:  
**A. Wiseman**  
 APPROVED BY:  
 P. Williams

DATE  
 December 21, 2012

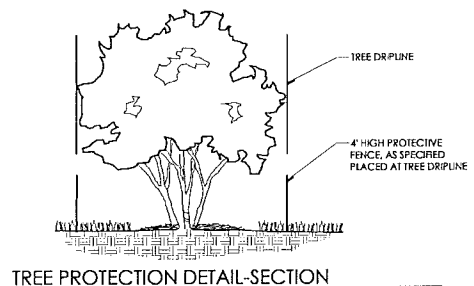
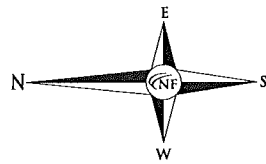
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NFE JOB NO. SHEET NO.  
**G951 SP-5**

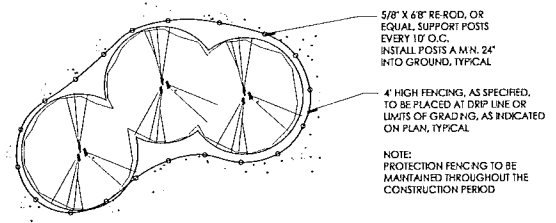


Location Map  
 N.T.S.

CITY FILE #79-951.6  
**NOT TO BE USED AS  
 CONSTRUCTION DRAWINGS**



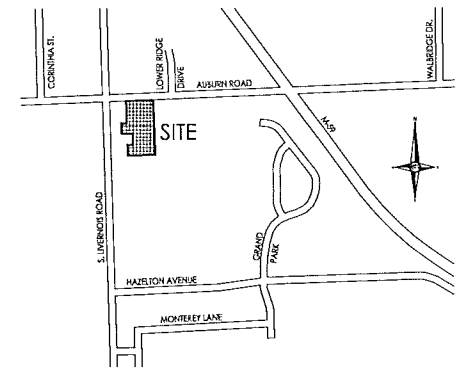
TREE PROTECTION DETAIL-SECTION N.T.S.



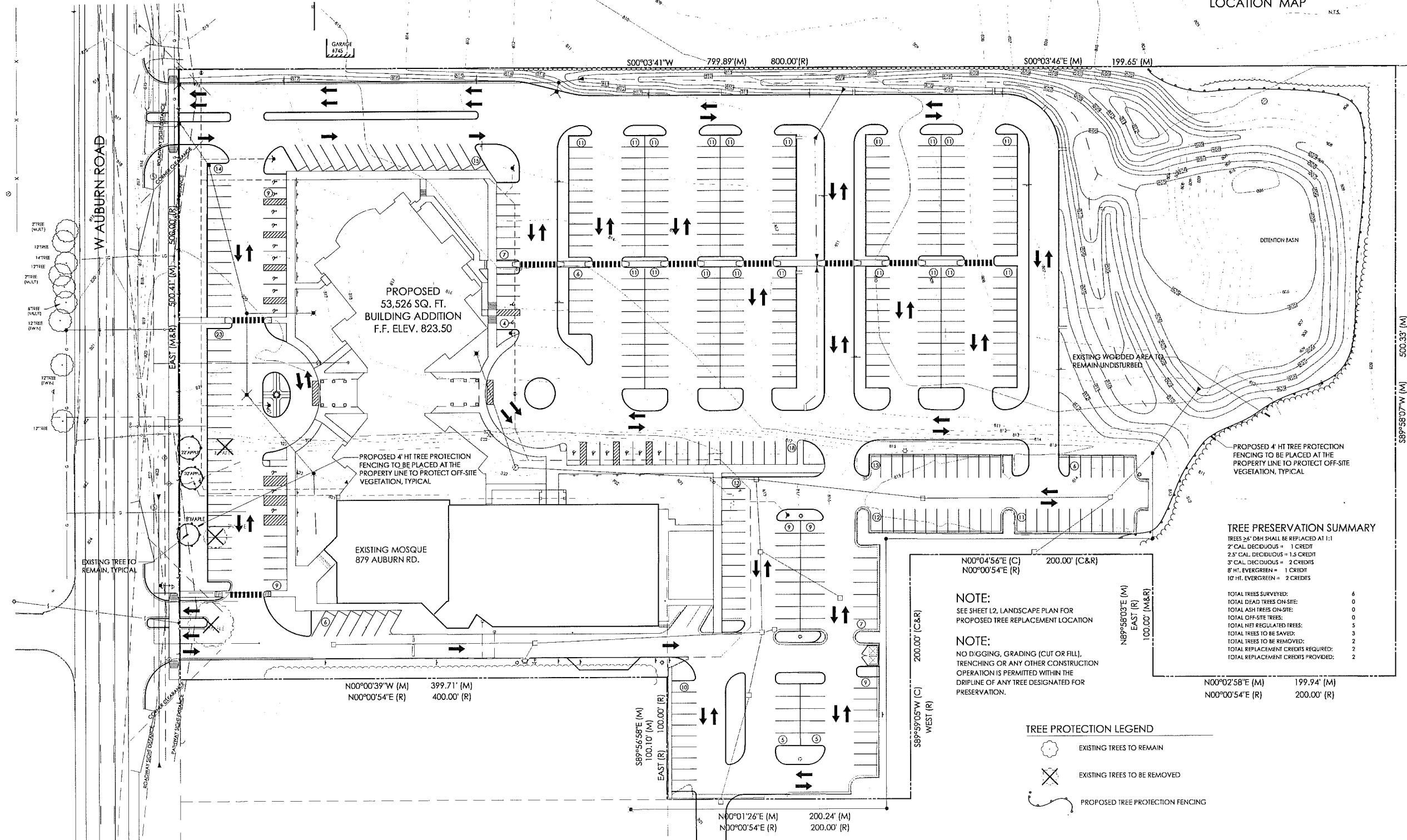
TREE PROTECTION DETAIL-PAN N.T.S.

**GENERAL TREE PROTECTION NOTES**

1. APPROVED TREE PROTECTION SHALL BE ERRECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
2. ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
3. NO PERSON SHALL CONDUCT ANY ACTIVITY WITHIN THE DRIPLINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR TOOL DEPOSITS WITHIN THE DRIPLINE.
4. WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
5. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE, FORESEEN TO REMAIN.
6. ALL UTILTY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
7. SWALES SHALL BE REQUIRED TO AVOID THE AREA WITHIN THE DRIPLINE OF PROTECTED TREES.
8. TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
9. ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
10. THE PARKING OF VEHICLES AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIPLINE OF PROTECTED TREES.
11. THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
12. ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TRUNKS TO REMAIN.
13. THE GRUBBING OF UNDESIRABLE VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MANUALLY WITH A HEDDAGE.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER DISTANCE GUIDELINES FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
15. 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.



LOCATION MAP N.T.S.



**TREE PRESERVATION SUMMARY**

TREES 24" DBH SHALL BE REPLACED AT 1:1  
 2" CAL. DECIDUOUS = 1 CREDIT  
 2.5" CAL. DECIDUOUS = 1.5 CREDIT  
 3" CAL. DECIDUOUS = 2 CREDITS  
 8" HT. EVERGREEN = 1 CREDIT  
 10" HT. EVERGREEN = 2 CREDITS

TOTAL TREES SURVEYED:	6
TOTAL DEAD TREES ON-SITE:	0
TOTAL ASH TREES ON-SITE:	0
TOTAL OFF-SITE TREES:	0
TOTAL NET REGULATED TREES:	5
TOTAL TREES TO BE SAVED:	2
TOTAL TREES TO BE REMOVED:	2
TOTAL REPLACEMENT CREDITS REQUIRED:	2
TOTAL REPLACEMENT CREDITS PROVIDED:	2

**NOTE:**  
SEE SHEET L2, LANDSCAPE PLAN FOR PROPOSED TREE REPLACEMENT LOCATION

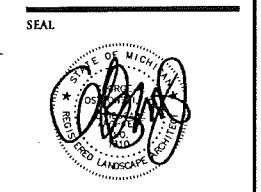
**NOTE:**  
NO DIGGING, GRADING (CUT OR FILL), TRENCHING OR ANY OTHER CONSTRUCTION OPERATION IS PERMITTED WITHIN THE DRIPLINE OF ANY TREE DESIGNATED FOR PRESERVATION.

**TREE PROTECTION LEGEND**

- EXISTING TREES TO REMAIN
- EXISTING TREES TO BE REMOVED
- PROPOSED TREE PROTECTION FENCING



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



**PROJECT**  
Islamic Association of Greater Detroit

**CLIENT**  
GAV Associates  
31471 Northwestern Hwy.  
Suite 2  
Farmington Hills, MI 48334  
Contact:  
Mr. Ghassan Abdelnour  
Ph: 248-985-9101  
Fax: 248-985-9105

**PROJECT LOCATION**  
Part of the NW 1/4  
of Section 34  
City of Rochester Hills,  
Oakland County, Michigan

**SHEET**  
Tree Preservation Plan



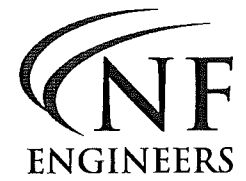
**REVISIONS**

06/11/13	ISSUED-SITE PLAN APPROVAL
08/06/13	REVISED PER CITY REVIEW
08/13/13	REVISED PER CITY REVIEW
09/10/13	REVISED PER CITY REVIEW

**DRAWN BY:**  
G. Ostrowski  
**DESIGNED BY:**  
G. Ostrowski  
**APPROVED BY:**  
G. Ostrowski  
**DATE:**  
December 20, 2012

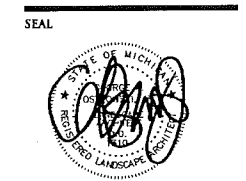
**SCALE:** 1" = 40'  
NFE JOB NO. **G951** SHEET NO. **L1**

NOT TO BE USED FOR CONSTRUCTION  
CITY FILE NO. 79-951.6



CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS

NOWAK & FRAUS ENGINEERS  
46777 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL. (248) 332-7931  
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PROJECT LOCATION  
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of Section 34  
City of Rochester Hills,  
Oakland County, Michigan

SHEET  
Landscape Plan

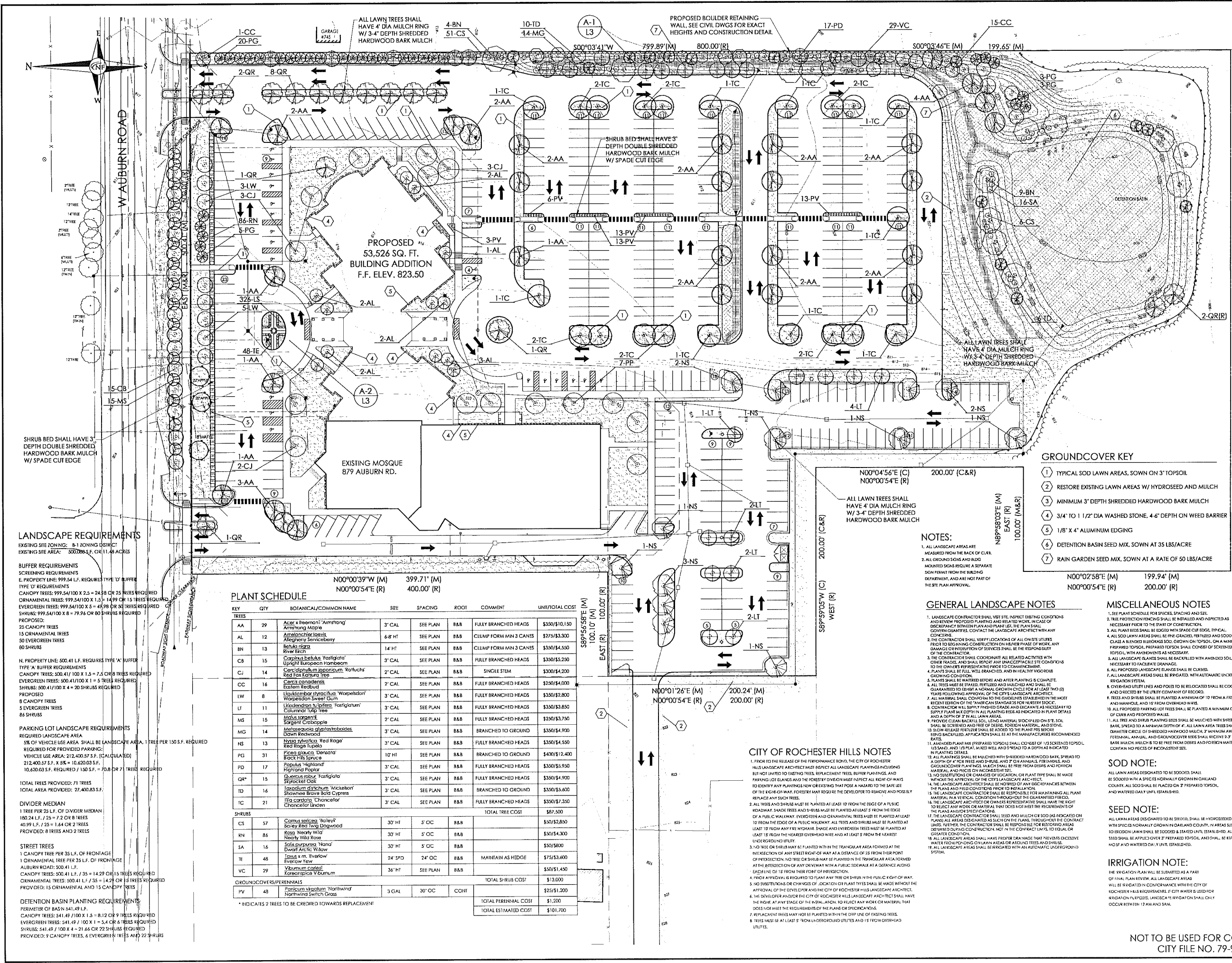


REVISIONS  
06/11/13 ISSUED-SITE PLAN APPROVAL  
08/06/13 REVISED PER CITY REVIEW  
08/13/13 REVISED PER CITY REVIEW  
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DRAWN BY:  
G. Ostrowski  
DESIGNED BY:  
G. Ostrowski  
APPROVED BY:  
G. Ostrowski  
DATE:  
December 20, 2012

SCALE: 1" = 40'  
NFE JOB NO. SHEET NO.  
G951 L2

NOT TO BE USED FOR CONSTRUCTION  
CITY FILE NO. 79-951.6



**GROUND COVER KEY**

- 1 TYPICAL SOD LAWN AREAS, SOWN ON 3" TOPSOIL
- 2 RESTORE EXISTING LAWN AREAS W/ HYDROSEED AND MULCH
- 3 MINIMUM 3" DEPTH SHREDDED HARDWOOD BARK MULCH
- 4 3/4" TO 1 1/2" DIA WASHED STONE, 4-6" DEPTH ON WEED BARRIER
- 5 1/8" X 4" ALUMINUM EDGING
- 6 DETENTION BASIN SEED MIX, SOWN AT 35 LBS/ACRE
- 7 RAIN GARDEN SEED MIX, SOWN AT A RATE OF 50 LBS/ACRE

**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.

**GENERAL LANDSCAPE NOTES**

1. LANDSCAPE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND FIELD, THE PLANNING DEPARTMENT 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 SERVICES 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 OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
4. PLANTS SHALL BE FULLY BRANCHED, AND IN HEALTHY WOODRICE GROWING CONDITION.
5. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
6. ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO BEAT A NORMAL GROWTH CYCLE FOR AT LEAST TWO (2) YEARS FOLLOWING APPROVAL OF THE CITY'S LANDSCAPE ARCHITECT.
7. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK."
8. CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPORT PLANT MATERIAL AND SHALL BE RESPONSIBLE FOR FINISHING DETAILS AND A DEPTH OF 12" IN ALL LAWN AREAS.
9. PROVIDE CLEAN BARRIER FILLS TO BE ADDED TO THE PLANT BED BEFORE TOPSOIL IS APPLIED. CONTRACTOR SHALL BE AT THE MANUFACTURER'S RECOMMENDED RATES.
10. DOWN RELEASE FERTILIZER SHALL BE APPLIED TO THE PLANT BED BEFORE TOPSOIL IS APPLIED. CONTRACTOR SHALL BE AT THE MANUFACTURER'S RECOMMENDED RATES.
11. ALL PROPOSED PAVING (LOT PAVING) SHALL BE 1/2" SCREENED TOPSOIL (50% SAND) AND 1/2" PREP. MIXED WELLS AND 3" SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
12. ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A DEPTH OF 4" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS AND CROCKING PLANTS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND PILES ON UNCOMPLETED AREAS.
13. NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE CITY'S LANDSCAPE ARCHITECT.
14. THE LANDSCAPE ARCHITECT'S CONDITION THROUGHOUT THE GUARANTEED PERIOD OF THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
15. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A HEALTHY CONDITION THROUGHOUT THE GUARANTEED PERIOD.
16. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM PONDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
17. ALL LANDSCAPE AREAS SHALL BE SERVED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

**MISCELLANEOUS NOTES**

1. SEE PLANT SCHEDULE FOR SPACING AND SIZE.
2. TREE PROTECTION FENCING SHALL BE INSTALLED AND INSPECTED AS NECESSARY PRIOR TO THE START OF CONSTRUCTION.
3. ALL PLANT BEDS SHALL BE EDGED WITH SPADE CUT EDGE, TYPICAL.
4. ALL SOD LAWN AREAS SHALL BE FINE-GRADED, FERTILIZED AND SOODED WITH CLASS A RENEWED SUBSTRAS SOD, GROWN ON TOPSOIL, ON A MESH OF 2" PREPARED TOPSOIL. PREPARED TOPSOIL SHALL CONSIST OF SCREENED ORGANIC TOPSOIL WITH AMENDMENTS AS NECESSARY.
5. ALL LANDSCAPE GRASSES SHALL BE BACKFILLED WITH AMENDED SOIL, WHERE NECESSARY TO FACILITATE DRAINAGE.
6. ALL PROPOSED LANDSCAPE SIGNING SHALL BE CURBED.
7. ALL LANDSCAPE AREAS SHALL BE BRIGATED, WITH AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
8. OVERHEAD UTILITY LINES AND POLES TO BE RELOCATED SHALL BE COORDINATED AND DIRECTED BY THE UTILITY COMPANY OF RECORD.
9. TREES AND SHRUBS SHALL BE PLANTED A MINIMUM OF 10' FROM A FIRE HYDRANT AND MANHOLE, AND 15' FROM OVERHEAD WIRES.
10. ALL PROPOSED PAVING (LOT PAVING) SHALL BE 1/2" SCREENED TOPSOIL (50% SAND) AND 1/2" PREP. MIXED WELLS AND 3" SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
11. ALL TREE AND SHRUB PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A MINIMUM DEPTH OF 4". ALL LAWN AREA TREES SHALL HAVE A 4" DIAMETER CIRCLE OF SHREDDED HARDWOOD MULCH 3' FROM TRUNK, ALL PERENNIAL, ANNUAL, AND CROCKING PLANTS SHALL RECEIVE 3" OF DARK COLORED BARK MULCH. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND SHALL CONTAIN NO PILES OF INCONSISTENT SIZE.

**SOD NOTE:**

ALL LAWN AREAS DESIGNATED TO BE SOODED, SHALL BE HYDROSEEDED WITH SPECIES NORMALLY GROWN IN OAKLAND COUNTY. IN AREAS SUBJECT TO EROSION, LAWN SHALL BE SOODED WITH STAKED LAYS. ESTABLISHED ALL SEED SHALL BE APPLIED OVER 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.

**IRRIGATION NOTE:**

THE IRRIGATION PLAN WILL BE SUBMITTED AS A PART OF FINAL PLAN REVIEW. ALL LANDSCAPE AREAS WILL BE SERVED IN CONFORMANCE WITH THE CITY OF ROCHESTER HILLS REQUIREMENTS. IF CITY WATER IS USED FOR IRRIGATION PURPOSES, LANDSCAPE IRRIGATION SHALL ONLY OCCUR BETWEEN 12 AM AND 5 AM.

**CITY OF ROCHESTER HILLS NOTES**

1. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT MUST REVIEW ALL LANDSCAPE PLANNING INCLUSIONS BUT NOT LIMITED TO EXISTING TREES, PLANTING SCHEDULES, BUFFER PLANTINGS, AND PARKING LOT GRASSES 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 RIGHTS-OF-WAY. FORESTRY MUST REQUIRE THE DEVELOPER TO REMOVE AND POSSIBLY REPLACE 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. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 15' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 15' FROM THE NEAREST OVERHEAD WIRE AND AT LEAST 5' FROM THE NEAREST UNDERGROUND UTILITY.
3. NO TREE OR SHRUB MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC SEWERAGE AT A DISTANCE ALONG 1' EXHAUSTIVE OF 15' FROM THEIR POINT OF INTERSECTION.
4. PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB IN THE PUBLIC RIGHT-OF-WAY.
5. NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANTING 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 REQUEST 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" DBH UNDERGROUND UTILITIES AND 15' FROM OVERHEAD UTILITIES.

**PLANT SCHEDULE**

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT	UNIT/TOTAL COST
<b>TREES</b>							
AA	29	Acer x Freemanii 'Armstrong'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$10,150
AL	12	Amelanchier lanceolata	6-8' HT	SEE PLAN	8.8.8	CLUMP FORM MIN 3 CANES	\$275/\$3,300
BN	13	Betula nigra	1 1/2" HT	SEE PLAN	8.8.8	CLUMP FORM MIN 3 CANES	\$350/\$4,550
CB	15	Carpinus Betulus 'Fastigiata'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$5,250
CJ	14	Cercidiphyllum japonicum	2" CAL	SEE PLAN	8.8.8	SINGLE STEM	\$300/\$4,200
CC	16	Cercis canadensis	7" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$250/\$4,000
LW	8	Liquidambar styraciflua 'Worpelsson'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$2,800
LT	11	Liquidambar styraciflua 'Fastigiata'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$3,850
MS	15	Morus nigra	7" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$250/\$3,750
MG	14	Magnolia x hybrid 'Bicolor'	3" CAL	SEE PLAN	8.8.8	BRANCHED TO GROUND	\$350/\$4,900
NS	13	Nyssa sylvatica 'Red Rover'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$4,550
PG	31	Prinos sibirica 'Dartmouth'	10" HT	SEE PLAN	8.8.8	BRANCHED TO GROUND	\$400/\$12,400
PD	17	Populus 'Highland'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$5,950
QD	15	Quercus rubra 'Fastigiata'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$4,900
TR	14	Taxodium distichum 'Mickelson'	3" CAL	SEE PLAN	8.8.8	BRANCHED TO GROUND	\$350/\$4,900
IC	21	Thuja occidentalis 'Conceptor'	3" CAL	SEE PLAN	8.8.8	FULLY BRANCHED HEADS	\$350/\$7,350
<b>TOTAL TREE COST</b>							<b>\$87,500</b>
<b>SHRUBS</b>							
CS	57	Camus setosus 'Baley'	30" HT	5' OC	8.8.8		\$50/\$2,850
RN	86	Rosa 'Newly Wed'	30" HT	5' OC	8.8.8		\$50/\$4,300
SA	16	Salix purpurea 'Nana'	30" HT	5' OC	8.8.8		\$50/\$800
TE	48	Taxus x media 'Erioloba'	24" SPD	24" OC	8.8.8	MAINTAIN AS HEDGE	\$75/\$3,600
VC	29	Viburnum coccineum	36" HT	SEE PLAN	8.8.8		\$50/\$1,450
<b>TOTAL SHRUB COST</b>							<b>\$13,000</b>
<b>GROUNDCOVERS/PERENNIALS</b>							
PV	48	Panicum virgatum 'Northwind'	3 GAL	30" OC	CONT		\$25/\$1,200
<b>TOTAL PERENNIAL COST</b>							<b>\$1,200</b>
<b>TOTAL ESTIMATED COST</b>							<b>\$101,700</b>

\* INDICATES 2 TREES TO BE CREDITED TOWARDS REPLACEMENT

**LANDSCAPE REQUIREMENTS**  
EXISTING SITE ZONING: B-1 ZONING DISTRICT  
EXISTING SITE AREA: 500,000 S.F. OR 11.48 ACRES

**BUFFER REQUIREMENTS**  
SCREENING REQUIREMENTS  
TYPE 'D' REQUIREMENTS  
CANOPY TREES: 999.54/100 X 2.5 = 24.88 OR 25 TREES REQUIRED  
ORNAMENTAL TREES: 999.54/100 X 1.5 = 14.99 OR 15 TREES REQUIRED  
EVERGREEN TREES: 999.54/100 X 5 = 49.98 OR 50 TREES REQUIRED  
SHRUBS: 999.54/100 X 8 = 79.96 OR 80 SHRUBS REQUIRED

**PROPOSED:**  
25 CANOPY TREES  
15 ORNAMENTAL TREES  
50 EVERGREEN TREES  
80 SHRUBS

**N. PROPERTY LINE: 500.41 LF. REQUIRE TYPE 'A' BUFFER**  
TYPE 'A' BUFFER REQUIREMENTS  
CANOPY TREES: 500.41/100 X 1.5 = 7.5 OR 8 TREES REQUIRED  
ORNAMENTAL TREES: 500.41/100 X 1 = 5 TREES REQUIRED  
SHRUBS: 500.41/100 X 4 = 20 SHRUBS REQUIRED

**PARKING LOT LANDSCAPE REQUIREMENTS**  
REQUIRED LANDSCAPE AREA  
5% OF VEHICLE USE AREA SHALL BE LANDSCAPE AREA. 1 TREE PER 150 S.F. REQUIRED  
REQUIRED FOR PROVIDED PARKING:  
VEHICLE USE AREA: 212,400 S.F. (CALCULATED)  
212,400 S.F. X 5% = 10,620 S.F.  
10,620 S.F. S.F. REQUIRED / 150 S.F. = 70.8 OR 71 TREES REQUIRED

**TOTAL TREES PROVIDED: 71 TREES**  
**TOTAL AREA PROVIDED: 27,400 S.F.**

**DIVIDER MEDIAN**  
1 TREE PER 25 LF. OF DIVIDER MEDIAN  
180.24 LF. / 25 = 7.2 OR 8 TREES  
40.99 LF. / 25 = 1.64 OR 2 TREES  
PROVIDED: 8 TREES AND 2 TREES

**STREET TREES**  
1 CANOPY TREE PER 35 LF. OF FRONTAGE  
1 ORNAMENTAL TREE PER 35 LF. OF FRONTAGE  
AUBURN ROAD: 500.41 LF.  
CANOPY TREES: 500.41 LF. / 35 = 14.29 OR 15 TREES REQUIRED  
ORNAMENTAL TREES: 500.41 LF. / 35 = 14.29 OR 15 TREES REQUIRED  
PROVIDED: 15 ORNAMENTAL AND 15 CANOPY TREES

**DETENTION BASIN PLANTING REQUIREMENTS**  
PERIMETER OF BASIN: 541.49 LF.  
CANOPY TREES: 541.49 / 100 X 1.5 = 8.12 OR 9 TREES REQUIRED  
EVERGREEN TREES: 541.49 / 100 X 1 = 5.4 OR 6 TREES REQUIRED  
SHRUBS: 541.49 / 100 X 4 = 21.66 OR 22 SHRUBS REQUIRED  
PROVIDED: 9 CANOPY TREES, 6 EVERGREEN TREES AND 22 SHRUBS

ALL LAWN TREES SHALL HAVE 4" DIA MULCH RING W/ 3-4" DEPTH SHREDDED HARDWOOD BARK MULCH

SHRUB BED SHALL HAVE 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH W/ SPADE CUT EDGE

ALL LAWN TREES SHALL HAVE 4" DIA MULCH RING W/ 3-4" DEPTH SHREDDED HARDWOOD BARK MULCH

PROPOSED 53,526 SQ. FT. BUILDING ADDITION  
F.F. ELEV. 823.50

EXISTING MOSQUE  
879 AUBURN RD.

PROPOSED BOULDER RETAINING WALL, SEE CIVIL DWGS FOR EXACT HEIGHTS AND CONSTRUCTION DETAIL

SHRUB BED SHALL HAVE 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH W/ SPADE CUT EDGE

ALL LAWN TREES SHALL HAVE 4" DIA MULCH RING W/ 3-4" DEPTH SHREDDED HARDWOOD BARK MULCH

**RAIN GARDEN SEED MIX**

\*CONTAINS 30% WILDFLOWERS, 10% NATIVE GRASSES AND 60% TEMPORARY GRASSES

WILDFLOWERS	GRASSES
NEW ENGLAND ASTER	BIG BLUESTEM
HEATH ASTER	CANADA WILD RYE
OX EYE SUNFLOWER	DARK GREEN BULKRUSH
DENSE BLINDSTAR	INDIAN GRASS
GREAT BLUE LOBELIA	WETLAND SEDGES
CARDINAL FLOWER	FOWL MANNA GRASS
BERGAMOT (BEEBALM)	RAIRIE CORD GRASS
SMOOTH PENSTEMON	DEER TONGUE
MOUNTAIN HANT	
YELLOW CONEFLOWER	
BLACK-EYED SUSAN	
FRARIE DOCK	
LANCE-LEAVED GOLDENROD	
OHIO GOLDENROD	
GOLDEN ALEXANDERS	

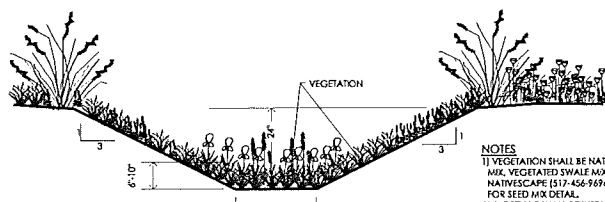
RECOMMENDED SEEDING RATE: 50-55 LBS/ACRE  
 SEED MIX AVAILABLE: NATIVESCAPE, LLC  
 PO BOX 122, MANCHESTER, MI 48158  
 T 517.456.9696

**DETENTION BASIN SEED MIX**

\*CONTAINS AT LEAST 12 WILDFLOWERS AND 3 GRASSES

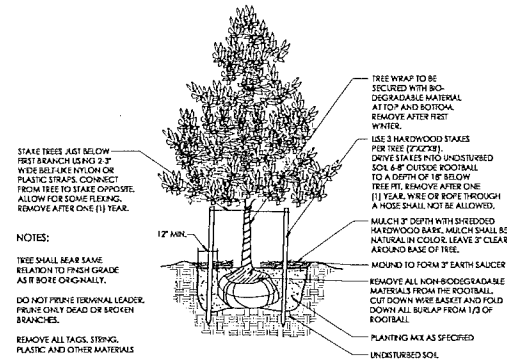
WILDFLOWERS	GRASSES
NEW ENGLAND ASTER	BIG BLUESTEM
PALE INDIAN PLANTAIN	CANADA WILD RYE
BONASET	DARK GREEN BULKRUSH
OX EYE SUNFLOWER	INDIAN GRASS
DENSE BLINDSTAR	WETLAND SEDGES
GREAT BLUE LOBELIA	FOWL MANNA GRASS
CARDINAL FLOWER	RAIRIE CORD GRASS
BERGAMOT (BEEBALM)	DEER TONGUE
YELLOW CONEFLOWER	
GREEN HEADED CONEFLOWER	
BLACK EYED SUSAN	
CUPLANT	
OHIO GOLDENROD	
BLUE VERVAIN	
CULVER'S ROOT	
IRONWEED	

RECOMMENDED SEEDING RATE: 35 LBS/ACRE  
 SEED MIX AVAILABLE: NATIVESCAPE, LLC  
 PO BOX 122, MANCHESTER, MI 48158  
 T 517.456.9696



**VEGETATED SWALE**

- NOTES:**
- 1) VEGETATION SHALL BE NATIVE WILDFLOWER AND GRASS MIX, VEGETATED SWALE MIX, AVAILABLE FROM NATIVESCAPE (517-456-9696). SEE LANDSCAPE PLAN FOR SEED MIX DETAILS.
  - 2) S&T FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE VEGETATED SWALE AND A TEMPORARY WOVEN GEOTEXTILE FABRIC SHALL BE PLACED OVER THE SWALE IMMEDIATELY AFTER SEEDING.
  - 3) REMOVE THE S&T FENCE AFTER THE COMPLETION OF CONSTRUCTION.
  - 4) REMOVE THE TEMPORARY WOVEN GEOTEXTILE FABRIC AFTER THE VEGETATION IS ADEQUATELY ESTABLISHED.



**DECIDUOUS TREE PLANTING DETAIL**

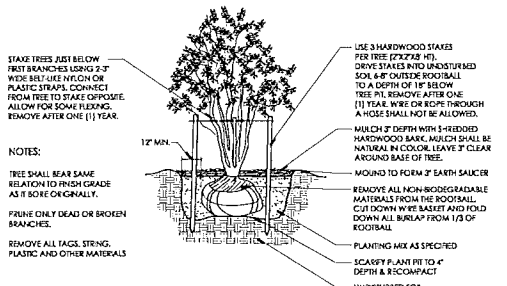
- NOTES:**
- TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IF BORE ORIGINALLY.
  - DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
  - REMOVE ALL TAGS, STENCILS, PLASTIC AND OTHER MATERIALS.
  - USE 3 HARDWOOD STAKES PER TREE (2X2X2). DRIVE STAKES INTO UNDISTURBED SOIL 4" OUTSIDE ROOTBALL TO A DEPTH OF 18" BELOW TREE. REMOVE AFTER ONE (1) YEAR. WIRE OR ROPE THROUGH A HOSE SHALL NOT BE ALLOWED.
  - MULCH 2" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR. LEAVE 2" CLEAR AROUND BASE OF TREE.
  - MOUND TO FORM 3" EARTH SAUCER AROUND BASE OF TREE.
  - REMOVE ALL NON-Biodegradable MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN ALL BURLAP FROM 1/3 OF ROOTBALL.
  - PLANTING MIX AS SPECIFIED.
  - UNDISTURBED SOIL.

**HEDGE PLANTING DETAIL**

- NOTES:**
- TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IF BORE ORIGINALLY.
  - DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
  - REMOVE ALL TAGS, STENCILS, PLASTIC AND OTHER MATERIALS.
  - USE 3 HARDWOOD STAKES PER TREE (2X2X2). DRIVE STAKES INTO UNDISTURBED SOIL 4" OUTSIDE ROOTBALL TO A DEPTH OF 18" BELOW TREE. REMOVE AFTER ONE (1) YEAR. WIRE OR ROPE THROUGH A HOSE SHALL NOT BE ALLOWED.
  - MULCH 2" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR. LEAVE 2" CLEAR AROUND BASE OF TREE.
  - MOUND TO FORM 3" EARTH SAUCER AROUND SHRUB.
  - REMOVE ALL NON-Biodegradable MATERIALS FROM THE ROOTBALL. FOLD DOWN ALL BURLAP FROM TOP 1/3 OF ROOTBALL.
  - SCARIFY SUBGRADE.
  - UNDISTURBED SOIL.

**ORNAMENTAL GRASS PLANTING DETAIL**

- NOTES:**
- ORNAMENTAL GRASSES SPACED ACCORDING TO PLANTING PLAN.
  - MULCH 2" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR.
  - PLANT MIX, 10-12" DEEP AS SPECIFIED.
  - UNDISTURBED SUBGRADE.



**MULTI-STEM TREE PLANTING DETAIL**

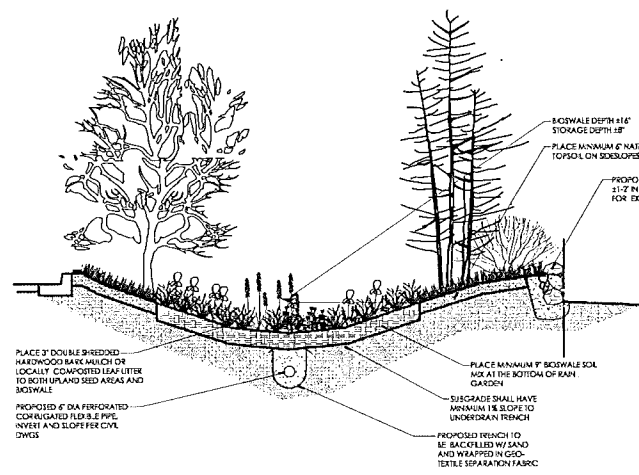
- NOTES:**
- TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IF BORE ORIGINALLY.
  - PRUNE ONLY DEAD OR BROKEN BRANCHES.
  - REMOVE ALL TAGS, STENCILS, PLASTIC AND OTHER MATERIALS.
  - USE 3 HARDWOOD STAKES PER TREE (2X2X2). DRIVE STAKES INTO UNDISTURBED SOIL 4" OUTSIDE ROOTBALL TO A DEPTH OF 18" BELOW TREE. REMOVE AFTER ONE (1) YEAR. WIRE OR ROPE THROUGH A HOSE SHALL NOT BE ALLOWED.
  - MULCH 2" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR. LEAVE 2" CLEAR AROUND BASE OF TREE.
  - MOUND TO FORM 3" EARTH SAUCER AROUND BASE OF TREE.
  - REMOVE ALL NON-Biodegradable MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN ALL BURLAP FROM 1/3 OF ROOTBALL.
  - SCARIFY PLANT BED TO 4" DEPTH & RECOMPACT.
  - UNDISTURBED SOIL.

**EVERGREEN TREE PLANTING DETAIL**

- NOTES:**
- TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IF BORE ORIGINALLY.
  - DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
  - REMOVE ALL TAGS, STENCILS, PLASTIC AND OTHER MATERIALS.
  - USE 3 HARDWOOD STAKES PER TREE (2X2X2). DRIVE STAKES INTO UNDISTURBED SOIL 4" OUTSIDE ROOTBALL TO A DEPTH OF 18" BELOW TREE. REMOVE AFTER ONE (1) YEAR. WIRE OR ROPE THROUGH A HOSE SHALL NOT BE ALLOWED.
  - MULCH 2" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR. LEAVE 2" CLEAR AROUND BASE OF TREE.
  - MOUND TO FORM 3" EARTH SAUCER AROUND SHRUB.
  - REMOVE ALL NON-Biodegradable MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN ALL BURLAP FROM 1/3 OF ROOTBALL.
  - PLANTING MIX AS SPECIFIED.
  - UNDISTURBED SOIL.

**PERENNIAL PLANTING DETAIL**

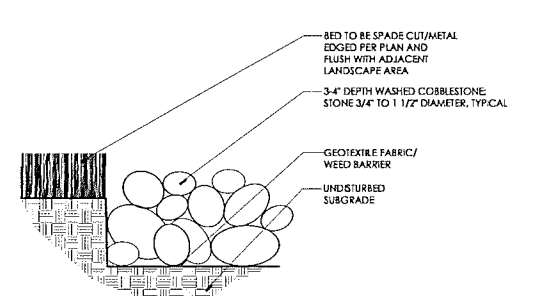
- NOTES:**
- PERENNIAL PLANTS SPACED ACCORDING TO PLANTING PLAN.
  - MULCH 2" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR.
  - PLANT MIX, 10-12" DEEP AS SPECIFIED.
  - UNDISTURBED SUBGRADE.



**TYPICAL BIOSWALE CROSS-SECTION**

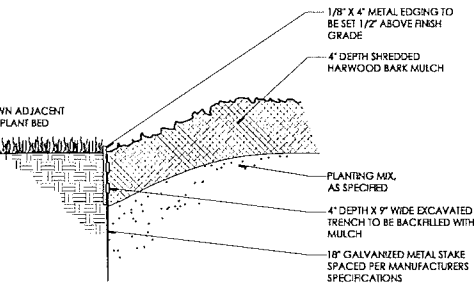
EAST PROPERTY LINE

- BIOSWALE SPECIFICATIONS**
- 1) 2' HIGH 4" BARS (SPACING 18" ON CENTER) SHALL BE INSTALLED TO SUPPORT RETAINING WALL.
  - 2) RETAINING WALL SHALL BE PLACED AHEAD OF THE OUTER PERIMETER OF BIOWALE AND SHALL BE CONCRETE OR BRICK.
  - 3) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 4) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 5) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 6) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 7) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 8) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 9) BIOWALE SHALL BE CONCRETE OR BRICK.
  - 10) BIOWALE SHALL BE CONCRETE OR BRICK.



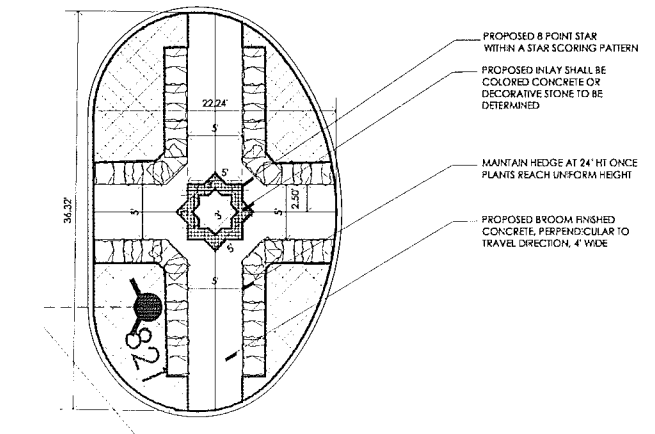
**COBBLESTONE MULCH DETAIL**

- NOTES:**
- BED TO BE SPADE CUT/METAL EDGED PER PLAN AND FLUSH WITH ADJACENT LANDSCAPE AREA.
  - 3-4" DEPTH WASHED COBBLESTONE STONE 3/4" TO 1 1/2" DIAMETER, TYP. CAL.
  - GEOTEXTILE FABRIC/WEED BARRIER.
  - UNDISTURBED SUBGRADE.



**METAL EDGING DETAIL**

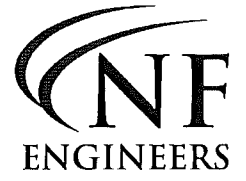
- NOTES:**
- 1/2" X 4" METAL EDGING TO BE SET 1/2" ABOVE FINISH GRADE.
  - 4" DEPTH SHREDDED HARDWOOD BARK MULCH.
  - PLANTING MIX, AS SPECIFIED.
  - 4" DEPTH X 1/2" WIDE EXCAVATED TRENCH TO BE BACKFILLED WITH MULCH.
  - 18" GALVANIZED METAL STAKE SPACED PER MANUFACTURERS SPECIFICATIONS.



**ENTRY ISLAND PAVING DETAIL**

1" = 4'-0"

- NOTES:**
- PROPOSED 8 POINT STAR WITH A STAR SCORING PATTERN.
  - PROPOSED INLAY SHALL BE COLORED CONCRETE OR DECORATIVE STONE TO BE DETERMINED.
  - MAINTAIN HEDGE AT 24" HI ONCE PLANTS REACH UNIFORM HEIGHT.
  - PROPOSED BROOM FINISHED CONCRETE, PERPENDICULAR TO TRAVEL DIRECTION, 4" WIDE.



**CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS**

NOWAK & FRAUS ENGINEERS  
 4677 WOODWARD AVE.  
 PONTIAC, MI 48342-5032  
 TEL. (248) 332-7931  
 FAX. (248) 332-8257



**PROJECT**  
 Islamic Association of Greater Detroit

**CLIENT**  
 GAV Associates  
 31471 Northwestern Hwy.  
 Suite 2  
 Farmington Hills, MI 48334  
 Contact:  
 Mr. Ghassan Abdelnour  
 Ph: 248-985-9101  
 Fax: 248-985-9105

**PROJECT LOCATION**  
 Part of the NW 1/4  
 of Section 34  
 City of Rochester Hills,  
 Oakland County, Michigan

**SHEET**  
 Landscape Notes  
 and Details



**REVISIONS**

06/11/13	ISSUED-SITE PLAN APPROVAL
08/06/13	REVISED PER CITY REVIEW
08/13/13	REVISED PER CITY REVIEW
09/10/13	REVISED PER CITY REVIEW

**DRAWN BY:**  
 G. Ostrowski  
**DESIGNED BY:**  
 G. Ostrowski  
**APPROVED BY:**  
 G. Ostrowski  
**DATE:**  
 December 20, 2012

**SCALE:** 1" = 40'

**NOT TO BE USED FOR CONSTRUCTION**  
 CITY FILE NO. 79-951.6

**NFE JOB NO. SHEET NO.**  
 G951 L3