

ROCHESTER HILLS

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DEVELOPMENT TEAM

OWNER

AMERICAN HOUSE
6755 TELEGRAPH ROAD SUITE 330
BLOOMFIELD HILLS, MICHIGAN 48301
(248) 203-1800

ARCHITECT

FUSCO, SHAFFER & PAPPAS, INC.
30800 NORTHWESTERN HWY., SUITE 100
FARMINGTON HILLS, MICHIGAN 48334
(248) 932-8300

LANDSCAPE ARCHITECT

RUSSELL DESIGN, INC.
114 RAYSON ST., SUITE 2A
NORTHVILLE, MICHIGAN 48167
(248) 374-3222

MECHANICAL ENGINEER

POTAPA-VAN HOOSEAR ENGINEERING
47810 VAN DYKE AVE.
SHELBY TWP, MICHIGAN 48317
(586) 997-0922

GENERAL CONTRACTOR

TBD

REDICO
ONE TOWNE SQUARE SUITE 1600
SOUTHFIELD, MICHIGAN 48076
(248) 827-1700

CIVIL ENGINEER

GIFFELS-WEBSTER ENGINEERS, INC.
2871 BOND ST.
ROCHESTER HILLS, MICHIGAN 48309
(248) 852-3100

STRUCTURAL ENGINEER

SHYMANSKI & ASSOCIATES, L.L.C.
30903 NORTHWESTERN HWY., SUITE 300
FARMINGTON HILLS, MICHIGAN 48334
(248) 855-1818

ELECTRICAL ENGINEER

TAC ASSOCIATES, L.L.C.
4321 EAST CAMDEN ROAD
OSSEO, MICHIGAN 49266
(517) 254-4789

FOOD SERVICE

GREAT LAKES HOTEL SUPPLY COMPANY
1961 GRAND RIVER
DETROIT, MICHIGAN 48226
(313) 962-1317

INTERIOR DESIGN

INNERSPACE DESIGN, INC.
2101 JACKSON ROAD
ANN ARBOR, MICHIGAN 48103
(734) 622-1133

DATE	ISSUE
06.28.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
08.14.13	SITE PLAN REVIEW



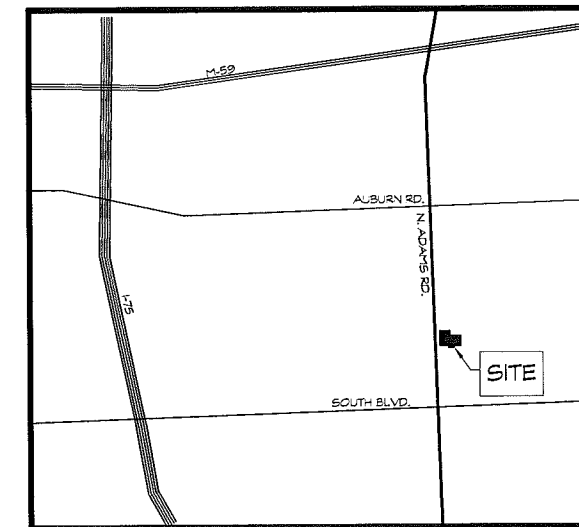
FUSCO, SHAFFER & PAPPAS, INC.
ARCHITECTS AND PLANNERS

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MICHIGAN

SUMMARY TABLE

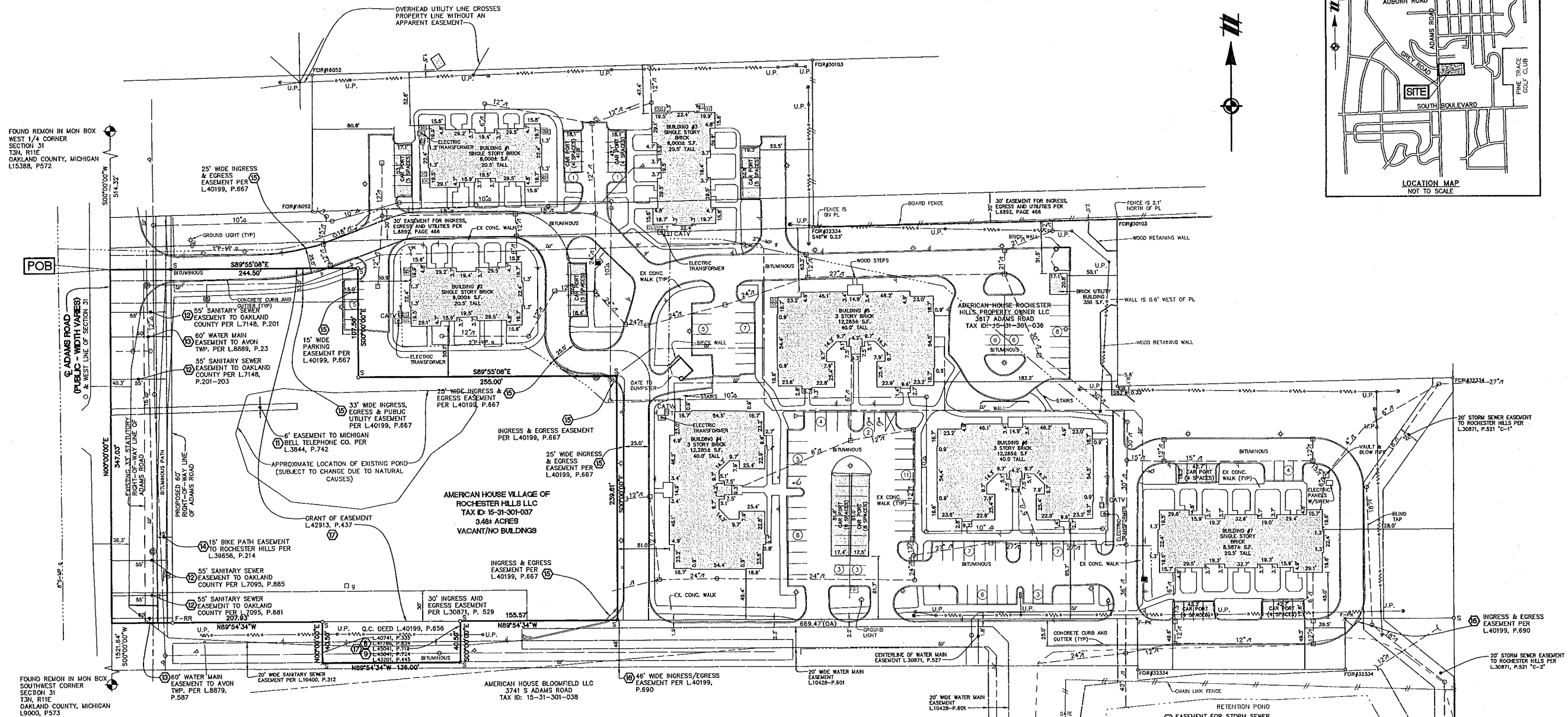
SITE DATA			
SITE AREA- GROSS		3.48 ACRES	
SITE AREA- NET		151,588 S.F.	
		0.48 ACRES	
		20,819 S.F.	
ZONING			SP (SPECIAL PURPOSE)
EXISTING			SP (SPECIAL PURPOSE)
PROPOSED			W/ PERMITTED USE; ADULT FOSTER CARE/ ASSISTED LIVING FACILITY
YARD SETBACKS	REQUIRED	PROPOSED	
NORTH (SIDE)	*60 FT./ 25 FT.	133 FT./ 25.5 FT.	
SOUTH (SIDE)	25 FT.	113.6 FT./ 65.5 FT.	
EAST (SIDE)	25 FT.	27.3 FT.	
WEST (FRONT)	50 FT.	52.5 FT.	
*60 FEET WHERE ADJACENT TO ONE-FAMILY RESIDENTIAL DISTRICT			
SITE DENSITY	N/A	3,789 S.F./UNIT	
		11.5 UNITS/ACRE	
MINIMUM LOT WIDTH	N/A	N/A	
MINIMUM LOT SIZE	N/A	N/A	
MAXIMUM LOT COVERAGE (ALL BUILDINGS)	N/A %	21.4%	
PARKING DATA			
REQUIRED	1 SPACE PER EVERY 2 BEDS	20 SPACES	
PROPOSED		21 SPACES	
		(INCLUDING 4 BARRIER FREE SPACES)	
BUILDING DATA			
BUILDING HEIGHT (TO MIDPOINT OF ROOF)			BUILDING CODE
ALLOWABLE	ZONING ORDINANCE		3 STORIES
PROPOSED	2 STORIES/ 40 FT.		1 STORY/ 20 FT. +/-
BUILDING AREA	G.F.A.	U.F.A.	
WEST WING	14,685 S.F.	9,968 S.F.	
EAST WING	14,685 S.F.	9,968 S.F.	
BACK-OF-HOUSE	3,209 S.F.	1,879 S.F.	
TOTAL	32,525 S.F.	21,815 S.F.	
COMMON AREAS AND FACILITIES			
REQUIRED. 50 S.F. PER BED MIN. X 40 BEDS=		2,000 S.F./ WING	
PROPOSED		5,720 S.F. (2,860 S.F./ WING)	
BED/ UNIT DATA			
MINIMUM UNIT AREA	REQUIRED MIN.	PROPOSED	
ONE BEDROOM	400 S.F.	SEE UNIT DATA	
STUDIO	300 S.F.	SEE UNIT DATA	
UNIT TYPES	MIN. AREA	GROSS AREA	NET AREA
A-1 ONE BEDROOM	400 S.F.	450 S.F.	412 S.F.
S-1 STUDIO	300 S.F.	300 S.F.	212 S.F.
			WEST WING
			EAST WING
			TOTAL
			20
			20
			40
ACCESSIBLE UNIT TYPES			
MOBILITY IMPAIRED UNITS (5% MIN.)	REQUIRED	PROPOSED	
VISION/HEARING IMPAIRED (2% MIN.)	1 PER WING	20 PER WING (40 TOTAL)	
	1 PER WING	2 PER WING (4 TOTAL)	
CODE DATA			
BUILDING CODE		2009 MICHIGAN RESIDENTIAL CODE	
USE GROUP		R (SEE EXCEPTION R 400.18101, RULE 101.(1) & (2) ADULT FOSTER CARE FACILITIES FIRE SAFETY RULES- 2012	
		NFPA 220 CONSTRUCTION TYPE	(V)(II)



SITE LOCATION MAP
SCALE: 1"=2000'-0"

CITY FILE #99-007.4

ALTA/ACSM LAND TITLE SURVEY



FOUND REMON IN MON BOX WEST 1/4 CORNER SECTION 31 T34, R1E OAKLAND COUNTY, MICHIGAN L15388, P572

FOUND REMON IN MON BOX SOUTHWEST CORNER SECTION 31 T34, R1E OAKLAND COUNTY, MICHIGAN L9000, P573

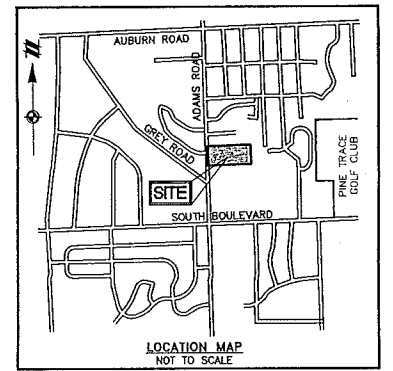


THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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LEGEND	
	EXIST. STORM SEWER
	EXIST. MANHOLE
	EXIST. CATCH BASIN/WALET
	END SECTION
	CULVERT
	EXIST. SANITARY SEWER
	EXIST. WATER MAIN
	EXIST. HYDRANT
	EXIST. SHUTOFF OR CURB BOX
	EXIST. GATE VALVE IN BOX
	EXIST. OVERHEAD ELECTRIC
	WATER METER
	GUY WIRE
	EXIST. GAS
	GAS METER
	EXIST. LIGHT POLE
	EXIST. AIR CONDITIONER
	EXIST. CURB AND GUTTER
	CENTERLINE OF DITCH OR EDGE OF WATER
	EXISTING FENCE
	SCHEDULE B-II EXCEPTION
	FENCE POST
	EXIST. SIGN
	EXIST. UTILITY POLE
	CENTERLINE
	EXIST. GAS RISER
	EXIST. CABLE TV RISER
	EXIST. MAILBOX
	FOUND IRON PIPE
	FOUND NAIL
	FOUND IRON ROD
	FOUND MAG NAIL
	SECTION CORNER
	EXISTING PARKING SPACES
	PLACE OF BEGINNING
	EXISTING FLAG POLE
	EXISTING GAS MARKER



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SECTION 31
TOWN 3 NORTH, RANGE 11 EAST
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

CLIENT
REDICO HOLDINGS, LLC
ALTA/ACSM LAND TITLE SURVEY
FOR A 3.48 ACRE PARCEL OF LAND LOCATED IN

DATE
MAY 16, 2013

REVISIONS



ATWELL
SCALE 0 25 50
1" = 50 FEET
DR. ME | GH. LMD
P.M. J. CECIL
BOOK MA 102-95
CAD FILE: 13000752AS-01
JOB 13000752
FILE CODE: AS-01
SHEET NO. 1 OF 2

City File #99-007.4

ALTA/ACSM LAND TITLE SURVEY

TITLE COMMITMENT PROVIDED BY SEAVER TITLE AGENCY, AN AGENT FOR OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, FILE NO : 63-13308766-SCM, EFFECTIVE DATE: MARCH 20, 2013

**SCHEDULE B-II
(EXCEPTIONS)**

- 8. Lessee's interest of SBA Monarch Towers III, LLC, a Delaware limited liability company and the terms conditions and provisions contained in the lease between American House Bloomfield Limited Partnership, a Michigan limited partnership, as lessor and T-Mobile Central, LLC, as lessee, as assigned by T-Mobile Central, LLC to Mobilite Investments II, LLC, a Nevada limited liability company and further assigned to SBA Monarch Towers III, LLC, Solid lease being disclosed by Memorandum of Lease recorded in Liber 40741, Page 335, Memorandum of Assignment and Site Lease Agreement recorded October 21, 2010 in Liber 41786, Page 834 and in Memorandum of Assignment recorded December 4, 2012 in Liber 45041, Page 719, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 9. Mortgage executed by SBA Monarch Towers III, LLC, a Delaware limited liability company to Deutsche Bank Trust Company Americas, as trustee, dated August 9, 2012 and recorded December 4, 2012 in Liber 45041, Page 724, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 10. Building restrictions and other provisions but omitting restrictions, if any, based on race, color, religion or national origin as contained in the instruments recorded in Liber 2553, Page 330, Liber 2553, Page 332 and in Liber 3147, Page 534, Oakland County Records.
DESCRIPTIONS OF PARCELS CONTAINED IN DOCUMENTS ARE ILLEGIBLE.
- 11. Right of Way granted to Michigan Bell Telephone Company for construction, operation and maintenance of telecommunications facilities recorded in Liber 3844, Page 742, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 12. Easements granted to the County of Oakland for construction, operation and maintenance of sanitary sewer system recorded in Liber 7095, Page 881, Liber 7095, Page 885 and in Liber 7148, Page 201, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 13. Easements and Conveyances to the Charter Township of Avon of all rights, title and interest in watermain and facilities incidental thereto recorded in Liber 8889, Page 23 and in Liber 8879, Page 587, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 14. Pedestrian/Bicycle Pathway Easement granted to the City of Rochester Hills recorded in Liber 39656, Page 214, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 15. Terms, conditions and provisions of Declaration of Easements by American House Village of Rochester Hills LLC, a Michigan limited liability company recorded in Liber 40199, Page 667, Oakland County Records.
AFFECTS/BENEFITS SUBJECT PROPERTY - AS SHOWN
- 16. Terms, conditions and provisions of Easement Agreement by and between American House Village of Rochester Hills LLC, a Michigan limited liability company and American House Bloomfield Limited Partnership, a Michigan limited partnership recorded in Liber 40199, Page 690, Oakland County Records.
AFFECTS/BENEFITS SUBJECT PROPERTY - AS SHOWN
- 17. Grant of Easements to Comcast of the South, Inc., a Colorado corporation for construction, maintenance and repair of broadband communications system recorded in Liber 42913, Page 437 and in Liber 43201, Page 445, Oakland County Records.
AFFECTS SUBJECT PROPERTY - AS SHOWN
- 18. Rights of the public or any governmental unit in any part of captioned land taken, used, dedicated or deeded for Adams Road.
- 19. Rights of tenants in possession, as tenants only.

SCHEDULE A - EXHIBIT "A"

The land referred to in this commitment is described as follows: City of Rochester Hills, County of Oakland, State of Michigan

Part of the Southwest 1/4 of Section 31, commencing at the West 1/4 corner of said Section 31, Town 3 North, Range 11 East, City of Rochester Hills, Oakland County, Michigan; thence South 00 degrees 00 minutes 00 seconds East 514.32 feet along the West line of said Section 31 and the centerline of Adams Road (variable width) for a PLACE OF BEGINNING; thence South 89 degrees 55 minutes 08 seconds East 244.50 feet; thence South 00 degrees 00 minutes 00 East 107.50 feet; thence South 89 degrees 55 minutes 08 seconds East 255.00 feet; thence South 00 degrees 00 minutes 00 seconds East 239.61 feet; thence North 89 degrees 54 minutes 34 seconds West 155.57 feet; thence South 00 degrees 00 minutes 00 East 40.50 feet; thence North 89 degrees 54 minutes 34 seconds West 138.00 feet; thence North 00 degrees 00 minutes 00 seconds East 40.50 feet; thence North 89 degrees 54 minutes 34 seconds West 207.93 feet; thence North 00 degrees 00 minutes 00 seconds East 347.03 feet along the West line of said Section 31 and the centerline of said Adams Road to the Place of Beginning, together with the benefits afforded by i) Declaration of Easements recorded in Liber 40199, Page 667 and ii) Easement Agreement recorded in Liber 40199, Page 690, Oakland County Records.

Tax Item No. 15-31-301-037

NOTES

1. BEARINGS ARE BASED ON TITLE DESCRIPTION
2. WATER MAIN, STORM SEWER, SANITARY SEWER AND UNDERGROUND UTILITY STRUCTURES HAVE BEEN FIELD LOCATED WHERE VISIBLE. NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, EXACTNESS OR CORRECTNESS OF THESE LOCATIONS.
3. THE SUBJECT SITE LIES WITHIN FLOOD ZONE "C" PER THE FEMA FIRM MAP OF THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN; PANEL NUMBER 260471-0389-F WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006.
4. THE SUBJECT SITE IS CURRENTLY ZONED: SP-SPECIAL PURPOSE DISTRICT PER THE ZONING ORDINANCE FOR THE CURRENT USE OF THE SITE:
 - i. Convalescent homes and nursing homes.
 - i. Convalescent and nursing homes shall not exceed a height of two stories unless waived as provided in footnote (d) of section 138-1111 of the schedule of regulations.
 - ii. No building shall be closer than 50 feet to any property line.
 - iii. The site shall be developed so as to provide 800 square feet of land area for each bed provided in the convalescent home.
 - iv. One parking space shall be provided for each two beds in the convalescent home.
 2. Low rise housing for the elderly.
 - i. Low rise housing for the elderly shall be defined as housing for the elderly not exceeding a height of three stories, unless waived as provided in footnote (i) of section 138-1111.
 - ii. Each one-bedroom living unit shall contain not less than 400 square feet exclusive of kitchen and bathroom facilities.
 - iii. Each two-bedroom living unit shall contain not less than 500 square feet exclusive of kitchen and bathroom facilities.
 - iv. The site shall be developed with 1,000 square feet of land area for each living unit. A minimum of 200 square feet per living unit of contiguous open space shall be provided apart from the areas used for off-street parking and driveways.
 - v. One parking space shall be provided for each living unit.
 - vi. The maximum length of a building shall not exceed 180 feet along any one side of the building, or 250 feet in the total length of a multiple of sides.
5. THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, RECENT BUILDING CONSTRUCTION, SOLID WASTE DUMP, SUMP, OR SANITARY LANDFILL ON THIS SITE
6. THERE ARE NO PROPOSED CHANGES TO STREET RIGHT-OF-WAY LINES.
7. REFERENCE SURVEY - ATWELL-HICKS JOB NO. 07001301, CAD FILE 07001301AS-01, DATED NOVEMBER 15, 2007, LAST REVISED APRIL 15, 2008.

CERTIFICATION PER TITLE COMMITMENT PROVIDED BY SEAVER TITLE AGENCY, AN AGENT FOR OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, FILE NO : 63-13308766-SCM, EFFECTIVE DATE: MARCH 20, 2013

To:
 - Seaver Title Agency
 - Old Republic National Title Insurance Company
 - AHR Senior Living LLC, a Michigan limited liability company on behalf of an entity to be formed

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 6(b), 7(a), 7(b)(1), 8, 9, 11(a), 13, 16, 17, and 18 of Table A thereof.

The field work was completed on May 2, 2013

Michael D. Embree
 Michael D. Embree
 Registered Professional Surveyor No. 56860
 Two Towne Square, Suite 700
 Southfield, Michigan 48076
 248.447.2000

Date: 5-17-2013



City File #99-607.4



THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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SECTION 31
 TOWN 3 NORTH, RANGE 11 EAST
 CITY OF ROCHESTER HILLS
 OAKLAND COUNTY, MICHIGAN

CLIENT: REDICO HOLDINGS, LLC
 ALTA/ACSM LAND TITLE SURVEY
 FOR A 3.48 ACRE PARCEL OF LAND
 LOCATED IN

DATE: MAY 16, 2013

REVISIONS



SCALE 0 25 50
 1" = 50 FEET

DR. ME CH. LMD
 P.M. J. CECIL
 BOOK MA 102-95
 CAD FILE 13000752AS-01
 JOB 13000752
 FILE CODE: AS-01
 SHEET NO. 2 OF 2

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT STANDARDS, SPECIFICATIONS AND GENERAL CONDITIONS OF THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, AND ANY/OR OTHER AGENCIES HAVING JURISDICTION.
- UTILITY INFORMATION SHOWN ON THESE PLANS WAS OBTAINED FROM UTILITY OWNERS AND THEREFORE MAY NOT BE ACCURATE OR COMPLETE. THE CONTRACTOR SHALL VERIFY AND OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT HAVE AN IMPACT ON THIS PROJECT, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES WHETHER THEY ARE SHOWN OR NOT ON THE PLANS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AT PROPOSED CONNECTIONS AND/OR CROSSINGS, AND TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES TO THESE PLANS.
- 72 HOURS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CONTACT MISS DIG AT (800) 482-7171 OR 811 FOR THE LOCATION OF UNDERGROUND GAS AND CABLE FACILITIES, AND SHALL ALSO NOTIFY REPRESENTATIVES OF ALL UTILITIES LOCATED IN THE VICINITY OF THE WORK.
- ALL PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR. ALL PERMIT FEES, BONDS, AND INSURANCE REQUIRED BY THE ISSUING AGENCIES SHALL BE PROVIDED BY THE CONTRACTOR, AND MUST BE KEPT CURRENT. THE CONTRACTOR IS RESPONSIBLE FOR ALL OTHER FEES, INSPECTION COSTS, ETC., AND SHALL ADHERE TO ALL REQUIREMENTS SET FORTH IN SAID PERMITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL WORK AREAS TO ENSURE THE SAFETY OF ALL OCCUPANTS, VISITORS, PEDESTRIANS, WORKERS, ETC. THE CONTRACTOR SHALL REPAIR AND MAINTAIN ALL CONSTRUCTION FENCING AS NECESSARY.
- THE CONTRACTOR SHALL PROVIDE FOR CONTROLLED ACCESS TO THE SITE FOR USE BY THE VARIOUS WORK FORCES, EMERGENCY VEHICLES, OCCUPANTS, VISITORS, ETC. THROUGHOUT CONSTRUCTION. THIS ACCESS MUST PROVIDE FOR THE REMOVAL OF MUD FROM VEHICLES TIRES. ROADWAYS AND DRIVEWAYS SHALL BE MAINTAINED OPEN FOR EMERGENCY VEHICLES AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE RESIDENTS AND BUSINESSES WHOSE DRIVEWAYS ARE AFFECTED BY HIS SCHEDULE 24 HOURS IN ADVANCE. CONTRACTOR SHALL SCHEDULE CONSTRUCTION AT NON-PEAK USE HOURS AND SHALL MINIMIZE DRIVEWAY CLOSURE BY EXPEDITING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE NECESSARY SIGNS, BARRICADES, AND LIGHTS TO PROTECT THE TRAFFIC AND THE WORK AS DIRECTED BY THE PLANS OR BY THE AGENCY WITH JURISDICTION. ALL TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND CITY OF ROCHESTER HILLS DEPARTMENT OF PUBLIC WORKS.
- THE CONTRACTOR IS REQUIRED TO CONFINE CONSTRUCTION ACTIVITIES TO THE LIMITS OF THE SITE AS SHOWN ON THE CONSTRUCTION PLANS. ANY DAMAGE OR DISRUPTION TO ADJACENT SITES IS THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT IMMEDIATELY. NO OFF-SITE WORK SHALL BE PERFORMED OUTSIDE OF PUBLIC RIGHTS-OF-WAY OR DEDICATED EASEMENTS WITHOUT PRIOR WRITTEN APPROVAL OF THE PROPERTY OWNER.
- GREAT CARE SHALL BE TAKEN TO AVOID DAMAGE TO VEGETATION OUTSIDE THE CLEARING AND GRUBBING LIMITS. NO DRIVING OR PARKING OF VEHICLES AND/OR STORAGE OF MATERIALS AND SUPPLIES SHALL BE PERMITTED OUTSIDE THE LIMITS OF CONSTRUCTION.
- ALL ELEVATIONS ON THESE PLANS ARE ON CITY OF ROCHESTER HILLS.
- THE PROTECTION OF EXISTING TREES, AS REQUIRED, SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY.
- ALL CONSTRUCTION SHALL HAVE INSPECTION PROVIDED BY THE CITY OF ROCHESTER HILLS. THE CONTRACTOR SHALL CONTACT THE CITY OF ROCHESTER HILLS 48 HOURS BEFORE THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL, AND SHALL PROVIDE ALL NECESSARY MATERIAL AND EQUIPMENT TO KEEP DUST IN CHECK AT ALL TIMES. THE CONTRACTOR SHALL RESPOND IMMEDIATELY TO ANY AND ALL COMPLAINTS. DUST CONTROL SHALL BE INCIDENTAL TO THE PROJECT.
- DURING CONSTRUCTION, THE CONTRACTOR MAY ENCOUNTER SPRINKLER HEADS, PIPING, LIGHTING AND BURIED ELECTRICAL CABLE, MAILBOXES, FENCES, SIGNS, ETC., THAT MAY OR MAY NOT BE INDICATED ON THESE PLANS. THE CONTRACTOR SHALL REPLACE AND/OR RESTORE ALL COMPONENTS OF SUCH SYSTEMS. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, MINIMUM STANDARD REQUIREMENTS, OR AS SPECIFIED HEREIN; WHICHEVER IS MORE STRINGENT.
- ROADWAY, DRIVEWAY, AND PARKING AREA FINAL RESTORATION SHALL BE PERFORMED WITH SURFACE AND BASE MATERIALS MATCHING EITHER THE EXISTING MATERIALS IN QUALITY AND THICKNESS, PER MINIMUM REQUIREMENTS, OR PER THE FOLLOWING; WHICHEVER IS MORE STRINGENT:
 - ASPHALT ON CONCRETE ROADWAYS - 1.5" MDOT HMA, 4C ON 2" MDOT HMA, 3C.
 - CONCRETE DRIVEWAYS ON 8" 4000 PSI CONCRETE ON 6" 21AA OR 22A CRUSHED LIMESTONE
 - ASPHALT HEAVY DUTY - 1.5" MDOT HMA, 1100T (3BA), 2.5" MDOT HMA, 1100L (20AA) ON 10" AGGREGATE BASE, MDOT 21AA.
- ALL LOT MARKERS AND MONUMENT POINTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- FINAL CLEANUP AND RESTORATION SHALL CONSIST OF FINE GRADING OF CONSTRUCTION AREAS, REMOVAL OF CONSTRUCTION SIGNS, ETC. TOPSOIL SHALL BE SPREAD OVER ALL DISTURBED AREAS, FOLLOWED BY SEED, FERTILIZER AND EROSION MAT OR STRAW MULCH, OR AS FURTHER REQUIRED BY THE LANDSCAPING PLANS AND SPECIFICATIONS. ALL REQUIRED RESTORATION ITEMS NOT SPECIFICALLY IDENTIFIED AS A PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE UTILITY POLES SHOWN ON THESE DRAWINGS ARE INTENDED TO SHOW ONLY THE LOCATION OF EXISTING POLES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITY AND DIRECTION OF OVERHEAD LINES. THE COST FOR SUPPORTING AND RELOCATING POLES SHALL BE INCIDENTAL TO THE PROJECT.
- THE MEANS AND METHODS OF CONTROLLING GROUNDWATER AND DEWATERING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ALL COST ASSOCIATED WITH DEWATERING SHALL BE INCIDENTAL TO THE CONTRACT.

DEMOLITION NOTES

- REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.
- WITH THE EXCEPTION OF AN AMOUNT OF EXCAVATED MATERIALS SUFFICIENT FOR BACKFILLING AND CONSTRUCTION OF FILLS AS CALLED FOR ON THE PLANS AND AS INDICATED BELOW, ALL BROKEN CONCRETE, STONE AND EXCESS EXCAVATED MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN THEIR OWN DISPOSAL GROUND, AND WILL RECEIVE NO ADDITIONAL COMPENSATION FOR DISPOSING OF ANY OF THE EXCESS MATERIALS. MATERIALS ACCEPTABLE TO THE ENGINEER MAY BE DISPOSED OF ON-SITE AT THE CONTRACTOR'S EXPENSE IN A MANNER APPROVED IN ADVANCE BY THE ENGINEER.
- THE EDGE OF EXISTING PAVEMENT SHALL BE CLEARED OF EARTH AND OTHER FOREIGN MATERIAL BEFORE ADJACENT POURS ARE PLACED.
- ALL BULKHEAD AND/OR SEWER PIPE REMOVAL NECESSITATED BY THE REMOVAL OF DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE STRUCTURE REMOVAL.
- STREET SIGNS IN THE WAY OF CONSTRUCTION WILL BE REMOVED AND RESET IMMEDIATELY IN A TEMPORARY LOCATION, AS APPROVED BY ENGINEER.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING SIGNS AND POSTS SCHEDULED TO REMAIN, AS DIRECTED BY THE ENGINEER.
- ALL UNDERGROUND UTILITIES NOT INDICATED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PRIVATE PROPERTY (INCLUDING BUILDINGS AND FOUNDATIONS) THROUGHOUT CONSTRUCTION AND SHALL MAINTAIN SAFE PEDESTRIAN ACCESS AT ALL TIMES.
- THE REMOVAL OF PAVEMENT, CURBS AND WALKS SHALL INCLUDE ALL REQUIRED SAWCUTTING. CURB REMOVAL IS INCIDENTAL TO PAVEMENT REMOVAL.

UTILITY NOTES

- REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.
- REFER TO ARCHITECTURAL PLANS TO COORDINATE ALL:
 - WATER SUPPLY, METERING, SPRINKLER AND FDC PIPING, DESIGN AND COORDINATION
 - BUILDING SEWER, BUILDING DRAIN DESIGN AND CONNECTIONS TO CLEAN OUTS AND ROOF CONNECTORS
 - GAS, ELECTRIC AND COMMUNICATION SERVICES, AND LIGHTING DETAILS
 - ALL BUILDING ACCESS WALKS AND ENTRY DETAILS, INCLUDING SUPPORTED SLABS
 - ALL WORK TO CONSTRUCT THE BUILDING AND ALL ITEMS CONNECTED TO IT
- ALL TRENCHES WITHIN A ONE ON ONE SLOPE OF PAVEMENT SHALL BE BACKFILLED WITH SAND (MDOT CLASS II MINIMUM) AND MECHANICALLY COMPACTED IN NOT MORE THAN 9" LAYER TO 95% MAXIMUM DRY DENSITY PER MODIFIED PROCTER COMPACTION TEST ASTM D-1557. COMPACTED SAND BACKFILL SHALL ALSO BE PROVIDED FOR ALL SEWER TRENCHES LOCATED UNDER, OR WITHIN, THREE FEET OF PAVEMENT.
- THE COST OF ALL TREE, STUMP, FOUNDATION AND/OR STRUCTURE REMOVAL AND DISPOSAL NOT INCLUDED IN THE PROPOSAL SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE PRICE BID FOR WATER MAIN, SANITARY SEWER, STORM SEWER, AND PAVING WORK.
- A MINIMUM VERTICAL CLEARANCE OF 18 INCHES IS REQUIRED AT UTILITY CROSSINGS (MEASURED FROM THE OUTSIDE OF PIPE TO THE OUTSIDE OF PIPE). POSITIVE PROVISIONS SHALL BE MADE TO ENSURE THAT ALL UTILITY TRENCHES ARE FREE DRAINING DURING ALL PHASES OF CONSTRUCTION.
- THE REQUIRED BEDDING FOR SEWER PIPE SHALL CONSIST OF A MAXIMUM 3/4 INCH DIAMETER CRUSHED STONE.
- THE MINIMUM SLOPE FOR A BUILDING LEAD IS 1%. LEADS SHALL ONLY BE CONNECTED TO THE MAIN LINE WITH WYES.
- ALL STORM SEWER PIPE SHALL BE CONSTRUCTED WITH RUBBER GASKET (PREMIUM) JOINTS.
- THE CONTRACTOR SHALL COORDINATE THE REMOVAL OF ALL UTILITY LINES AND STRUCTURES, AS OUTLINED ON THE DEMOLITION PLAN, WITH THE INSTALLATION OF UTILITY IMPROVEMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING GRADE MODIFICATIONS INDICATED ON THE FINISHED LANDSCAPE PLAN, AND COORDINATE THE ACTUAL FINISH GRADE OF FIRE HYDRANTS, GATE VALVE CASTINGS, MANHOLES, YARD DRAINS, CLEAN OUTS AND OTHER UTILITY STRUCTURES. ENSURE THAT ALL FINISH GRADING IS PERFORMED IN A MANNER THAT ACCOMPLISHES THE PROJECT DESIGN OBJECTIVES AND PROVIDES FOR POSITIVE DRAINAGE OF ALL AREAS. ANY SUBSTANTIAL GRADE CHANGES WHICH MAY CAUSE FUNCTIONAL PROBLEMS SHALL BE REPORTED PROMPTLY TO THE ENGINEER WHO SHALL EVALUATE THE CONDITIONS AND PROVIDE CORRECTIVE RECOMMENDATIONS TO THE OWNER FOR FINAL DETERMINATION.
- CONTRACTOR SHALL BE REQUIRED TO COORDINATE THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, SPRINKLERS ETC., IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO PLACING THE PAVEMENT MATERIALS. ENSURE THAT ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED AND THAT THE TRENCHES ARE PROPERLY BACKFILLED AND COMPACTED.
- THE CONTRACTOR SHALL REMOVE UTILITIES, WHICH HAVE BEEN ABANDONED IN PLACE, AS REQUIRED TO COMPLETE INSTALLATION OF NEW UTILITIES. WHENEVER ABANDONED UTILITIES ARE CUT, CONTRACTOR SHALL COMPLETELY CAP BOTH ENDS TO PREVENT THE INFILTRATION OF SOILS.
- NO CONNECTION MAY BE MADE TO ANY EXISTING WATER MAIN UNTIL THE NEW MAIN HAS PASSED ALL PRESSURE AND BACTERIOLOGICAL TESTING.
- ROADWAY, DRIVEWAY AND PARKING AREA CROSSINGS SHALL BE TEMPORARILY CONDITIONED IMMEDIATELY AFTER CROSSING BY PLACING 8" OF MDOT 22A GRAVEL OR SLAG AGGREGATE, AND SHALL BE MAINTAINED IN GOOD, DUST FREE CONDITION UNTIL PAVEMENT RESTORATION IS MADE.

PAVING AND GRADING NOTES

- REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.
- THE PAVING CONTRACTOR SHALL BE REQUIRED TO COORDINATE THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, SPRINKLERS, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO PLACING THE PAVEMENT MATERIALS. ENSURE THAT ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED AND THAT THE TRENCHES ARE PROPERLY BACKFILLED AND COMPACTED.
- BUTT JOINTS SHALL BE PLACED AT ALL LOCATIONS WHERE AN EXISTING ASPHALT PAVEMENT SURFACE IS BEING DISTURBED BY REMOVALS AND/OR THE INSTALLATION OF NEW ASPHALT PAVEMENT.
- ALL PAVEMENT AREAS SHOULD BE CLEARED AND GRUBBED BY REMOVING SURFACE VEGETATION, TOPSOIL, DEBRIS AND OTHER DELETERIOUS MATERIALS.
- THE PLACEMENT OF THE FINAL ASPHALT LIFT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED, OR AS APPROVED BY THE OWNER. A BOHD COAT OF SS-1H EMULSION SHALL BE APPLIED (AT A RATE OF 0.10 GALLONS/SY.D.) BETWEEN THE LEVELING AND WEARING COURSE WHEN 48 HOURS HAVE ELAPSED BETWEEN PLACEMENTS.
- THE FINAL SUB-GRADE SHALL BE THOROUGHLY PROOF-ROLLED UNDER THE OBSERVATION OF THE SOILS ENGINEER.
- PROPOSED AGGREGATE BASE SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE PAVEMENT EDGE/BACK OF CURB.
- ALL TRENCHES WITHIN A ONE ON ONE SLOPE OF PAVEMENT SHALL BE BACKFILLED WITH SAND (MDOT CLASS II MINIMUM) AND MECHANICALLY COMPACTED IN NOT MORE THAN 9" LAYER TO 95% MAXIMUM DRY DENSITY PER MODIFIED PROCTER COMPACTION TEST ASTM D-1557.
- NO FROZEN MATERIAL SHALL BE PERMITTED AS BACKFILL UNDER ANY ROADWAY, DRIVEWAY OR PARKING AREA.
- PRIOR TO THE START OF ANY FILLING, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ALL OTHER UNACCEPTABLE SOIL FROM THE FILL AREAS, AND PROPERLY BACKFILL WITH ACCEPTABLE SOIL.
- BARRIER FREE SIGNAGE SHALL BE PLACED IN FRONT OF EVERY DESIGNATED BARRIER FREE STALL. THE CONTRACTOR SHALL COORDINATE STANDARD AND VAN ACCESSIBILITY SIGNAGE AS INDICATED ON THE PLANS.
- ALL BARRIER FREE RAMPS TO BE A.D.A. COMPLIANT.
- ALL DRIVEWAY APPROACHES AND ALLEY RETURNS TO COMPLY WITH THE CITY OF ROCHESTER HILLS STANDARDS.
- GENERAL GRADING REQUIREMENTS ARE AS FOLLOWS:
 - FINISH GRADE AT EXISTING BUILDING SHALL MATCH BRICK LEDGES, DOORWAYS OR BOTTOM OF BASEMENT WINDOWS
 - MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING (± 1%)
 - SIDEWALK CROSS SLOPE 2% MAXIMUM AND 1% MINIMUM (EXCLUDING RAMPS).
 - PAVEMENT SLOPES (1.0% MINIMUM, 7.5% MAXIMUM) UNIFORMLY BETWEEN FINISH GRADE ON PLANS
 - LAWN AREAS ± 1% MINIMUM TO 33% (BERMS) MAXIMUM
- ALL PROPOSED GRADES ARE AT THE GUTTER UNLESS OTHERWISE NOTED. SEE DETAILS FOR FACE OF CURB, TOP OF CURB AND ASPHALT ADJUSTMENTS.
- PRIOR TO THE PLACEMENT OF ANY BASE ASPHALT OR LEVELING COURSE, THE CURBS SHALL BE PARTIALLY BACKFILLED AND THE SUB-GRADE SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF THE SOILS ENGINEER.
- ALL SIDEWALK AND PATHWAYS IN ANY PUBLIC R.O.W. SHALL BE INSPECTED BY THE AGENCY WITH JURISDICTION.

EROSION CONTROL NOTES

- REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.
- ALL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF OAKLAND COUNTY.
- ANY EROSION AND SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED WITHIN THE WORK AREA AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. (WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, PONDS AND WETLANDS)
- THE CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS DIRECTED ON THESE PLANS AND WHENEVER OTHERWISE REQUIRED BY THE WORK. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER CHANGES HAVE BEEN ACCOMPLISHED.
- SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENTATION CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF DIRT OUT OF THE WORK AREA.
- THE CONTRACTOR SHALL PRESERVE NATURAL VEGETATION AS MUCH AS POSSIBLE.
- PROTECT ALL EXISTING TREES, INCLUDING THEIR BRANCHES AND ROOTS, FROM DAMAGE DUE TO THIS WORK UNLESS SPECIFICALLY IDENTIFIED FOR REMOVAL.
- VEGETATION STABILIZATION OF ALL DISTURBED AREAS SHALL BE ESTABLISHED WITHIN 15 DAYS OF COMPLETION OF FINAL GRADING.
- THE CONTRACTOR SHALL SWEEP THE EXISTING STREETS SURROUNDING THE PROJECT SITE ONCE A WEEK, OR AS DIRECTED BY THE ENGINEER OR INSPECTOR. STREET SCRAPING SHALL BE PERFORMED IN CONJUNCTION WITH THIS SWEEPING ON AN AS NEEDED BASIS.
- THE SEDIMENT CONTROL FENCING INDICATED ON THIS PLAN IS NOT INTENDED TO SHOW THE EXACT LOCATION OF THE FENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE REQUIRED TO CONTAIN SEDIMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH ALL APPLICABLE NPDES REGULATIONS, INCLUDING: INSPECTION, RESTORATION, AND RECORD KEEPING REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ON-GOING MAINTENANCE OF ALL SOIL EROSION CONTROLS AS INDICATED BY THESE PLANS.
- CONSTRUCTION ACTIVITIES (INCLUDING INSTALLATION OF PIPE AND ASSOCIATED VALVES, STRUCTURES, BACK FILLING, SURFACE RESTORATION, AND REMOVAL OF EXCESS EXCAVATED MATERIAL) SHALL BE ACCOMPLISHED IN ONE CONTINUOUS OPERATION.
- PAVEMENT AND/OR VEGETATION SHALL NOT BE STRIPPED FROM AN AREA UNLESS CONSTRUCTION ACTIVITIES ARE TO COMMENCE IN THAT AREA WITHIN THE NEXT THREE DAYS.
- IF FOR ANY REASON PERMANENT STABILIZATION CAN NOT BE PROVIDED WITHIN 15 DAYS OF THE COMPLETION OF PIPE LAYING OPERATIONS, TEMPORARY STABILIZATION SHALL BE PROVIDED AT ALL DISTURBED AREAS. TEMPORARY STABILIZATION SHALL FURTHERMORE BE PROVIDED DURING THE NON-GROWING SEASON (OCTOBER 1 THROUGH APRIL 20) FOR ALL AREAS TO BE SEEDED.
- TEMPORARY STABILIZATION SHALL CONSIST OF EITHER SMALL GRAIN STRAW OR GRASS HAY SPREAD AT THE RATE OF 1.5 TO 2 TONS PER ACRE, OR MULCH BLANKETS, WHICH SHALL BE ANCHORED IN PLACE TO PREVENT DISPLACEMENT FROM WIND AND RAIN. TEMPORARY STABILIZATION SHALL BE REPAIRED AS OFTEN AS NECESSARY, AS DETERMINED BY THE AGENCY WITH JURISDICTION.
- ALL DEWATERING SHALL BE ACCOMPLISHED IN A MANNER THAT WILL NOT CONTRIBUTE TO DEPOSITION OF SEDIMENT IN ROAD DITCHES OR OPEN WATER.
- THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF ACT 451 OF 1994, AS AMENDED.
- SEDIMENT CONTROL FENCING SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND SEVERAL TIMES DURING PROLONGED STORM EVENTS. IF THE FENCE IS SAGGING, OR SOIL HAS REACHED ONE HALF OF THE HEIGHT OF THE FABRIC, THE SOIL BEHIND THE FABRIC SHALL BE REMOVED AND DISPOSED OF IN A STABLE AREA OF THE SITE. IF WATER IS SEEPING UNDER THE FENCE, OR THE FABRIC IS DECOMPOSED OR OTHERWISE INEFFECTIVE, THE FENCE SHALL BE REMOVED AND PROPERLY REINSTALLED AS INDICATED ON THESE PLANS.
- MUD MAT ENTRANCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH STORM RAINFALL. THE SURROUNDING ROADS SHALL ALSO BE INSPECTED AT THIS TIME FOR EVIDENCE THAT MUD IS BEING TRACKED OFF OF THE SITE. MAINTENANCE SHALL INCLUDE THE INSTALLATION OF ADDITIONAL LAYERS OF STONE WHEN THE ORIGINAL STONE BECOMES COVERED WITH MUD. ALL SEDIMENT DROPPED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY BY SWEEPING AND SCRAPING (AS MAY BE REQUIRED BY THE ENGINEER).
- SEDIMENT INLET FILTERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND SEVERAL TIMES DURING PROLONGED STORM EVENTS. THE FILTERS SHALL BE CLEANED PERIODICALLY THROUGHOUT CONSTRUCTION TO AVOID CLOGGING. FILTERS THAT CANNOT BE MAINTAINED BY CLEANING SHALL BE COMPLETELY REPLACED.

EROSION CONTROL SEQUENCE

- NPDES PERMIT AND SOIL EROSION PERMITS AS REQUIRED.
- INSTALL MUD MATS, SILT FENCE AND INLET FILTERS AT ALL EXISTING LOCATIONS AS SHOWN AND AS REQUIRED TO ACHIEVE ON-SITE CONTAINMENT.
- INSTALL STORM AND SANITARY SEWER AND ALL ASSOCIATED STORM WATER IMPROVEMENTS AS SHOWN ON PLANS. IMMEDIATELY INSTALL INLET FILTERS AT ALL CATCH BASINS.
- ROUGH GRADE THE PROJECT "WORK AREA" AS NEEDED.
- INSTALL WATER MAIN AS SHOWN ON PLANS.
- INSTALL OTHER UTILITIES (GAS, ELECTRIC, PHONE, CABLE, ETC.) AND/OR ALL NEEDED CONDUITS AND SLEEVES.
- INSTALL PAVEMENT BACKFILL AND SEED & MULCH ALL DISTURBED AREAS.
- CLEAR ALL ACCUMULATED SILT AND REMOVE ALL EROSION CONTROL DEVICES.
- INSTALL LANDSCAPING MATERIALS AS INDICATED PER PLANS & RE-SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS.

AMERITECH 313-221-2121	COMCAST CABLE COMPANY 313-934-1608
DETROIT EDISON COMPANY 313-237-9000	CITY OF ROCHESTER HILLS DEPARTMENT OF PUBLIC SERVICES 248-656-4685

GRADING LEGEND

EXISTING UTILITY EASEMENT

- STORM LINE
- SAN. LINE
- WATER SERVICE
- DRAIN TILE

ROCK LINE

- GUTTER GRADE
- TOP OF CURB GRADE
- FINISHED GRADE
- TOP OF ASPHALT GRADE
- TOP OF WALK
- BOTTOM OF WALL GRADE
- TOP OF WALL GRADE
- SPOT GRADE
- FINISHED FLOOR
- EDGE OF METAL
- BACK OF CURB
- DROP BRICK LEDGE
- HIGH POINT
- MATCH EX. MATCH EXISTING GRADE

SOIL EROSION & SEDIMENT CONTROL LEGEND

- MUD MAT
- SOIL TYPE 10D
- INLET FILTER
- SOIL EROSION CONTROL FENCE
- SOIL LINES
- LIMITS OF GRADING

TOPOGRAPHIC SURVEY LEGEND

- EASEMENT LINE
- SECTION LINE
- COMBINED SEWER
- STORM LINE
- SAN. LINE
- WATER LINE
- GAS LINE
- UG ELEC. LINE
- UG TELE. LINE
- ELECTRIC OVERHEAD
- STORM CLEAN OUT
- ELEC. TRANS.
- SIGN
- SET IRON
- UTILITY POLE
- ELEC. MH
- TELE. MH
- GAS MH
- GAS RISER
- GAS VALVE
- LIGHT POLE
- UTILITY FLAG
- BENCHMARK
- UTILITY CROSSING
- ELEC. RISER
- PUBLIC LIGHTING MH
- SAN. MH
- GATE VALVE
- HYDRANT
- WATER VALVE
- POST INDICATOR VALVE
- FDC CONNECTION
- STORM MH
- CATCH BASIN
- MANHOLE
- UTILITY POLE

DEMOLITION LEGEND

- SAWCUT CLEAN EDGE FULL DEPTH
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- TREE REMOVAL
- TREE PROTECTION FENCE
- HORIZONTAL CURB CUT

SITE PLAN LEGEND

- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED STANDARD DUTY ASPHALT
- MATCH EXISTING PAVEMENT SECTION
- PROPOSED PATIO
- PROPOSED 4" CONCRETE
- PROPOSED 6" CONCRETE
- PROPOSED 18" CONCRETE CURB & STANDARD GUTTER
- PROPOSED 18" REVERSED CONCRETE CURB & STANDARD GUTTER
- PROPOSED WALK
- PROPOSED BUILDING
- SETBACK
- PROPOSED HANDRAIL
- PROPOSED RETAINING WALL
- PROPOSED PARKING STRIP
- BUTT JOINT
- PARKING SPACE COUNT

UTILITY LEGEND

- SANITARY MANHOLE
- CATCH BASIN
- REAR YARD CATCH BASIN
- GATE VALVE
- STORM MANHOLE
- UTILITY CROSSING
- WATER METER

08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW ISSUE

KEY PLAN

ESP PROJECT NO. AMH12.008
GW PROJECT NO. 17568.03

DRAWING TITLE
NOTES & DETAILS

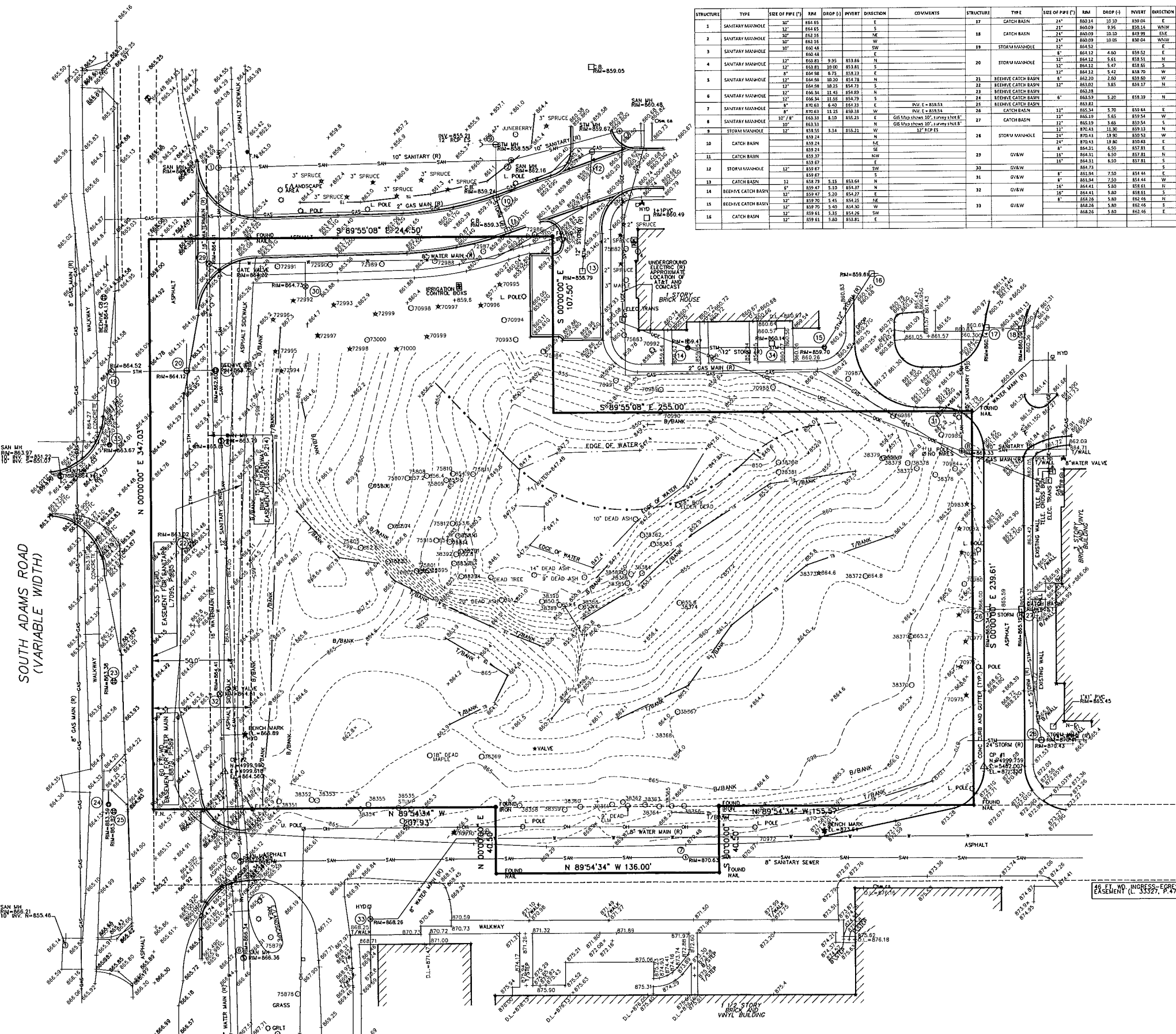
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SP-02

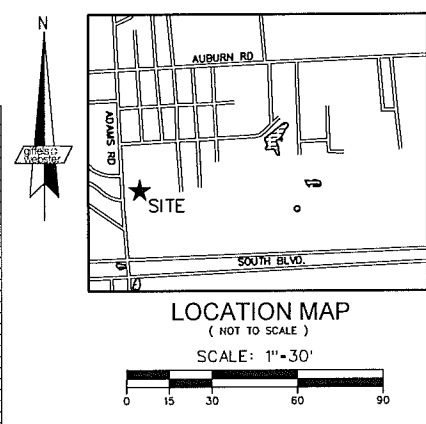
STATE OF MICHIGAN
DEAN A. WAKELAND
ENGINEER
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CITY FILE #99-007.4

72 HOURS (3 BUSINESS DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 OR 811 (TOLL FREE)

NOT TO BE USED AS CONSTRUCTION DRAWINGS



STRUCTURE	TYPE	SIZE OF PIPE (I)	RM	DROP (I)	INVERT	DIRECTION	COMMENTS	STRUCTURE	TYPE	SIZE OF PIPE (I)	RM	DROP (I)	INVERT	DIRECTION	COMMENTS
1	SANITARY MANHOLE	12"	854.65			E		17	CATCH BASIN	24"	850.34	10.10	850.04	E	
2	SANITARY MANHOLE	12"	854.55			S		18	CATCH BASIN	24"	850.09	9.95	850.16	WNW	
3	SANITARY MANHOLE	12"	854.38			W		19	STORM MANHOLE	12"	850.09	10.10	850.04	MCW	
4	SANITARY MANHOLE	12"	854.48			SW		20	STORM MANHOLE	12"	854.52			E	
5	SANITARY MANHOLE	12"	853.81	9.95	853.66	N		21	REEDIVE CATCH BASIN	8"	854.12	4.50	854.52	E	
6	SANITARY MANHOLE	12"	854.58	10.20	854.78	N		22	REEDIVE CATCH BASIN	12"	854.12	5.47	854.65	S	
7	SANITARY MANHOLE	12"	854.58	10.20	854.78	N		23	REEDIVE CATCH BASIN	12"	854.12	5.47	854.65	S	
8	SANITARY MANHOLE	12"	854.58	10.20	854.78	N		24	REEDIVE CATCH BASIN	12"	854.12	5.47	854.65	S	
9	STORM MANHOLE	12"	853.33	8.10	853.23	E	GIS Map shows 10' x 10' x 8' POLE E. 853.53	25	REEDIVE CATCH BASIN	8"	854.59	3.20	854.39	N	BOTTOM = 854.34
10	CATCH BASIN		853.24			N		26	CATCH BASIN	12"	853.24			N	
11	CATCH BASIN		853.24			N		27	CATCH BASIN	12"	853.24			N	
12	STORM MANHOLE	12"	853.24			N		28	G&V/W	18"	854.31	6.50	857.81	N	TYPICAL = 857.81
13	CATCH BASIN		853.24			N		29	G&V/W	18"	854.31	6.50	857.81	N	TYPICAL = 857.81
14	REEDIVE CATCH BASIN	8"	854.47	5.10	854.87	N		30	G&V/W	18"	854.31	6.50	857.81	N	TYPICAL = 857.81
15	REEDIVE CATCH BASIN	12"	853.70	5.45	854.25	SW		31	G&V/W	18"	854.31	6.50	857.81	N	TYPICAL = 857.81
16	CATCH BASIN	12"	853.61	3.80	853.81	E		32	G&V/W	18"	854.31	6.50	857.81	N	TYPICAL = 857.81



UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

(R) = UTILITY SHOWN FROM RECORDS OR PLANS, & FIELD LOCATED WHERE POSSIBLE.

PRIOR TO THE PLANNED BUILDING IMPROVEMENTS, AND/OR CONSTRUCTION, THE RESPECTIVE UTILITY COMPANIES MUST BE NOTIFIED TO STAKE THE PRECISE LOCATION OF THEIR UTILITIES.

BENCHMARK DATA

(CITY OF ROCHESTER HILLS) DATUM

SITE BENCHMARK NO. 1
ARROW ON HYDRANT, LOCATED AT EAST SIDE OF ADAMS +/- 140' SOUTH OF S. BRIARVALE DRIVE. ELEVATION = 856.88'

SITE BENCHMARK NO. 2
TOP OF HUT ON HYDRANT, LOCATED +/- 400' EAST OF ADAMS ON THE NORTH SIDE OF NORTH DRIVE BETWEEN S. BRIARVALE DRIVE AND S. GREY ROAD. ELEVATION = 873.64'

NOTES:

- THIS PARCEL IS LOCATED WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD AREA ZONE X (AREA DETERMINED TO BE OUTSIDE OF 0.2% ANNUAL CHANCE FLOOD PLAIN) IN ACCORDANCE WITH THE FEDERAL INSURANCE RATE MAP NUMBER 26125C0389F, EFFECTIVE DATE OF SEPTEMBER 29, 2006.
- TREE SIZES AND SPECIES ARE THE BEST ESTIMATION OF THE FIELD SURVEYOR. SPECIFIC QUESTIONS REGARDING INDIVIDUAL TREES SHOULD BE DIRECTED TO A QUALIFIED FORESTER.
- NO CERTIFICATION CAN BE MADE AS TO LIMITS OF OWNERSHIP.
- SEE SOIL EROSION & SEDIMENT CONTROL PLAN, SP-08, FOR EXISTING SOIL TYPES.

FUSCO, SHAFFER & PAPPAS, INC.
ARCHITECTS AND PLANNERS

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DATE	DESCRIPTION
08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.04.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW ISSUE

KEY PLAN

FSP PROJECT NO. AMH12.008
GW PROJECT NO. 17568.01

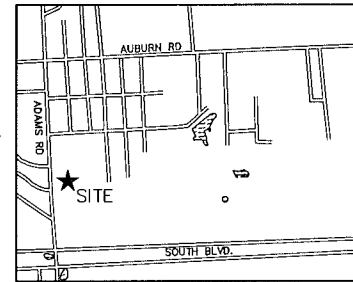
DRAWING TITLE
TOPOGRAPHIC SURVEY

DRAWING NUMBER
SP-03

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 OR 811 (TOLL FREE)

CITY FILE #99-007.4

NOT TO BE USED AS CONSTRUCTION DRAWINGS



LOCATION MAP (NOT TO SCALE)

SCALE: 1" = 30'

BENCHMARK DATA

(CITY OF ROCHESTER HILLS) DATUM

SITE BENCHMARK NO. 1

ARROW ON HYDRANT, LOCATED AT EAST SIDE OF ADAMS +/- 140' SOUTH OF S. BRIARVALE DRIVE. ELEVATION = 856.88'

SITE BENCHMARK NO. 2

TOP OF HUT ON HYDRANT, LOCATED +/- 400' EAST OF ADAMS ON THE NORTH SIDE OF NORTH DRIVE BETWEEN S. BRIARVALE DRIVE AND S. GREY ROAD. ELEVATION = 873.64'

NOTES:

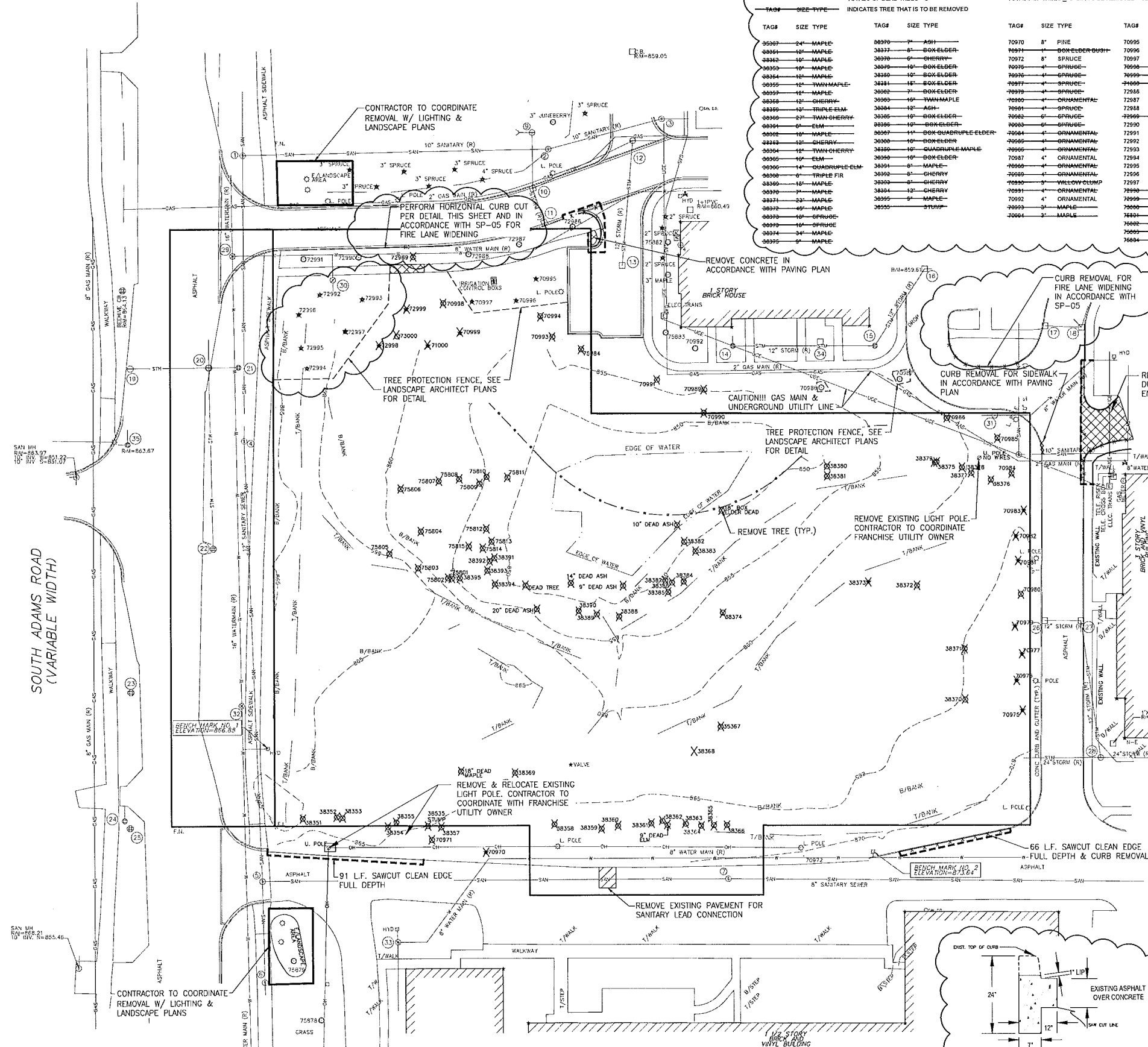
- SEE TOPOGRAPHIC SURVEY PLAN, SP-03, FOR EXISTING UTILITY STRUCTURE CHART

TREE LIST

TAG#	SIZE	TYPE	TOTAL # OF TREES ON SITE = 118	TOTAL # OF TREES TO BE REMOVED = 87	TOTAL # OF DEAD TREES = 8	INDICATES TREE THAT IS TO BE REMOVED
9597	24"	MAPLE	08970	7"	ASH	
9891	12"	MAPLE	38377	8"	BOX ELDER	
0880	10"	MAPLE	38378	6"	CHERRY	
38353	10"	MAPLE	38379	10"	BOX ELDER	
38354	10"	MAPLE	38380	10"	BOX ELDER	
06355	12"	TWIN MAPLE	38381	18"	BOX ELDER	
06357	12"	MAPLE	38382	7"	BOX ELDER	
06359	12"	CHERRY	38383	12"	TWIN MAPLE	
08380	12"	TRIPLE-ELM	38384	12"	ASH	
06360	27"	TWIN CHERRY	38385	10"	BOX ELDER	
06361	0"	ELM	38386	10"	BOX ELDER	
06362	10"	MAPLE	38387	11"	BOX QUADRUPLE ELDER	
4442	12"	CHERRY	38388	10"	BOX ELDER	
06363	10"	MAPLE	38389	10"	CHERRY	
06364	10"	TWIN CHERRY	38390	10"	QUADRUPLE MAPLE	
06365	10"	ELM	38391	10"	BOX ELDER	
06366	14"	QUADRUPLE-ELM	38392	8"	CHERRY	
06368	0"	TRIPLE FIR	38393	8"	CHERRY	
06369	10"	MAPLE	38394	12"	CHERRY	
06370	10"	SPRUCE	38395	5"	MAPLE	
06371	10"	SPRUCE	38396	5"	MAPLE	
06372	10"	SPRUCE	38397	10"	SPRUCE	
06373	10"	SPRUCE	38398	10"	SPRUCE	
06374	34"	MAPLE	38399	34"	MAPLE	
06375	4"	MAPLE	38400	3"	MAPLE	

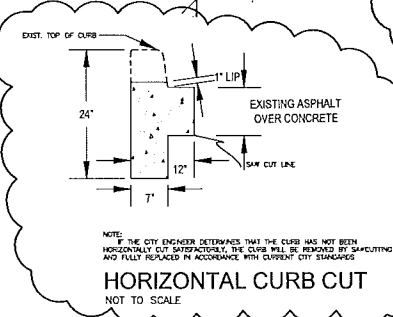
REGULATED TREES

TAG#	SIZE	TYPE	TOTAL # OF TREES ≥ 6" DIA TO BE PRESERVED = 12 (16%)	TOTAL # OF TREES ≥ 6" DIA TO BE REMOVED = 62 (84%)	
70970	8"	PINE	70995	3"	SPRUCE
70971	8"	SPRUCE	70996	3"	SPRUCE
70972	8"	SPRUCE	70997	2"	SPRUCE
70973	8"	SPRUCE	70998	2"	SPRUCE
70974	8"	SPRUCE	70999	2"	SPRUCE
70975	8"	SPRUCE	71000	2"	SPRUCE
70976	8"	SPRUCE	71001	2"	SPRUCE
70977	8"	SPRUCE	71002	2"	SPRUCE
70978	8"	SPRUCE	71003	2"	SPRUCE
70979	8"	SPRUCE	71004	2"	SPRUCE
70980	8"	SPRUCE	71005	2"	SPRUCE
70981	8"	SPRUCE	71006	2"	SPRUCE
70982	8"	SPRUCE	71007	2"	SPRUCE
70983	8"	SPRUCE	71008	2"	SPRUCE
70984	8"	SPRUCE	71009	2"	SPRUCE
70985	8"	SPRUCE	71010	2"	SPRUCE
70986	8"	SPRUCE	71011	2"	SPRUCE
70987	8"	SPRUCE	71012	2"	SPRUCE
70988	8"	SPRUCE	71013	2"	SPRUCE
70989	8"	SPRUCE	71014	2"	SPRUCE
70990	8"	SPRUCE	71015	2"	SPRUCE
70991	8"	SPRUCE	71016	2"	SPRUCE
70992	8"	SPRUCE	71017	2"	SPRUCE
70993	8"	SPRUCE	71018	2"	SPRUCE
70994	8"	SPRUCE	71019	2"	SPRUCE
70995	8"	SPRUCE	71020	2"	SPRUCE
70996	8"	SPRUCE	71021	2"	SPRUCE
70997	8"	SPRUCE	71022	2"	SPRUCE
70998	8"	SPRUCE	71023	2"	SPRUCE
70999	8"	SPRUCE	71024	2"	SPRUCE
71000	8"	SPRUCE	71025	2"	SPRUCE
71001	8"	SPRUCE	71026	2"	SPRUCE
71002	8"	SPRUCE	71027	2"	SPRUCE
71003	8"	SPRUCE	71028	2"	SPRUCE
71004	8"	SPRUCE	71029	2"	SPRUCE
71005	8"	SPRUCE	71030	2"	SPRUCE
71006	8"	SPRUCE	71031	2"	SPRUCE
71007	8"	SPRUCE	71032	2"	SPRUCE
71008	8"	SPRUCE	71033	2"	SPRUCE
71009	8"	SPRUCE	71034	2"	SPRUCE
71010	8"	SPRUCE	71035	2"	SPRUCE
71011	8"	SPRUCE	71036	2"	SPRUCE
71012	8"	SPRUCE	71037	2"	SPRUCE
71013	8"	SPRUCE	71038	2"	SPRUCE
71014	8"	SPRUCE	71039	2"	SPRUCE
71015	8"	SPRUCE	71040	2"	SPRUCE
71016	8"	SPRUCE	71041	2"	SPRUCE
71017	8"	SPRUCE	71042	2"	SPRUCE
71018	8"	SPRUCE	71043	2"	SPRUCE
71019	8"	SPRUCE	71044	2"	SPRUCE
71020	8"	SPRUCE	71045	2"	SPRUCE
71021	8"	SPRUCE	71046	2"	SPRUCE
71022	8"	SPRUCE	71047	2"	SPRUCE
71023	8"	SPRUCE	71048	2"	SPRUCE
71024	8"	SPRUCE	71049	2"	SPRUCE
71025	8"	SPRUCE	71050	2"	SPRUCE
71026	8"	SPRUCE	71051	2"	SPRUCE
71027	8"	SPRUCE	71052	2"	SPRUCE
71028	8"	SPRUCE	71053	2"	SPRUCE
71029	8"	SPRUCE	71054	2"	SPRUCE
71030	8"	SPRUCE	71055	2"	SPRUCE
71031	8"	SPRUCE	71056	2"	SPRUCE
71032	8"	SPRUCE	71057	2"	SPRUCE
71033	8"	SPRUCE	71058	2"	SPRUCE
71034	8"	SPRUCE	71059	2"	SPRUCE
71035	8"	SPRUCE	71060	2"	SPRUCE
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71043	8"	SPRUCE	71068	2"	SPRUCE
71044	8"	SPRUCE	71069	2"	SPRUCE
71045	8"	SPRUCE	71070	2"	SPRUCE
71046	8"	SPRUCE	71071	2"	SPRUCE
71047	8"	SPRUCE	71072	2"	SPRUCE
71048	8"	SPRUCE	71073	2"	SPRUCE
71049	8"	SPRUCE	71074	2"	SPRUCE
71050	8"	SPRUCE	71075	2"	SPRUCE
71051	8"	SPRUCE	71076	2"	SPRUCE
71052	8"	SPRUCE	71077	2"	SPRUCE
71053	8"	SPRUCE	71078	2"	SPRUCE
71054	8"	SPRUCE	71079	2"	SPRUCE
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71056	8"	SPRUCE	71081	2"	SPRUCE
71057	8"	SPRUCE	71082	2"	SPRUCE
71058	8"	SPRUCE	71083	2"	SPRUCE
71059	8"	SPRUCE	71084	2"	SPRUCE
71060	8"	SPRUCE	71085	2"	SPRUCE
71061	8"	SPRUCE	71086	2"	SPRUCE
71062	8"	SPRUCE	71087	2"	SPRUCE
71063	8"	SPRUCE	71088	2"	SPRUCE
71064	8"	SPRUCE	71089	2"	SPRUCE
71065	8"	SPRUCE	71090	2"	SPRUCE
71066	8"	SPRUCE	71091	2"	SPRUCE
71067	8"	SPRUCE	71092	2"	SPRUCE
71068	8"	SPRUCE	71093	2"	SPRUCE
71069	8"	SPRUCE	71094	2"	SPRUCE
71070	8"	SPRUCE	71095	2"	SPRUCE
71071	8"	SPRUCE	71096	2"	SPRUCE
71072	8"	SPRUCE	71097	2"	SPRUCE
71073	8"	SPRUCE	71098	2"	SPRUCE
71074	8"	SPRUCE	71099	2"	SPRUCE
71075	8"	SPRUCE	71100	2"	SPRUCE



CITY OF ROCHESTER HILLS FORESTRY & TREE PROTECTION NOTES:

- IMPORTANT:**
- ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED. THE TREE PROTECTIVE FENCING MAY BE PLACED ALONG THE ACTUAL PROPERTY LINE IF THE BRANCHES OF THE TREES ON THE ADJACENT PROPERTIES DO NOT OVERHANG ONTO THE SITE BEING DEVELOPED. IF THE BRANCHES OVERHANG ONTO THE AREA OF THE SITE BEING DEVELOPED, THE TREE PROTECTIVE FENCING MUST BE PLACED AT THE ACTUAL DRIP LINE OF THESE TREES. IT SHOULD ALSO BE NOTED THAT THE SLIT FENCING MUST BE PLACED BETWEEN THE DEVELOPMENT SIDE OF THE TREE PROTECTIVE FENCING. THE SLIT FENCING MAY NOT BE PLACED BETWEEN THE TREE BEING PRESERVED AND THE TREE PROTECTIVE FENCING. IF ANY REGULATED TREES ARE DAMAGED ON THE ADJACENT PROPERTIES, THE DAMAGED TREES WILL BE EITHER REPLACED ON THE OWNER'S PROPERTY ON AN INCH FOR INCH BASIS OR A FINE IN THE SUM OF \$122.00 PER CALIPER INCH WILL BE ISSUED AGAINST THE DEVELOPER. THIS FINE WILL BE DUE PRIOR TO BUILDING PERMITS BEING ISSUED. IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION, CALL THE CITY'S PLANNING DEPARTMENT AT 248-656-4660.
- TREE PROTECTION NOTES:**
- The tree protection fencing (TPF) shall be erected per the plans approved by the City of Rochester Hills Planning Department. The TPF must be in place and be inspected by the City of Rochester Hills Planning Staff prior to the start of any earthwork or construction operations. It is the developer's responsibility to contact the City Planning Department at 248-656-4660 to schedule a TPF inspection. The TPF shall remain in place throughout the entire construction process or until the City authorizes the removal or issues a final Certificate of Occupancy, whichever occurs first.
 - Upon completion of grading and the installation of the infrastructure, a second inspection of the TPF and the trees designated for preservation is required by the City of Rochester Hills Forester prior to the start of any additional construction. It is the developer's responsibility to contact the City Planning Department at 248-656-4660 to schedule this TPF inspection.
 - A final inspection by the City of Rochester Hills Planning Staff is required at the end of the warranty and maintenance period. The Landscape Maintenance Bond will not be released until this inspection is complete and all related issues are resolved. It is the developer's responsibility to contact the City Planning Department at 248-656-4660 to schedule this inspection.
 - The Tree Conservation Ordinance prohibits any construction or development activities within the drip line of any regulated trees not approved for removal, including, but not limited to, land clearing, grubbing, trenching, grading or filling; no person shall place any solvents, building material, construction equipment, soil deposits or harmful materials within the drip line limit of trees designated for preservation.
 - Proposed grades are to match the existing elevations outside the limits of the TPF. No grading either cut or fill is permitted within the drip line of any tree designated for preservation.
 - During the construction process no person shall attach any device or wire/cable/cord/rope to an existing tree designated to be preserved.
 - All utility service requests must include notification to the installer that protected trees must be avoided. All trenching shall occur outside the TPF.
 - Skales shall be routed to avoid the area within the drip line of the only tree designated for preservation. Skales shall be constructed so as to not direct any additional flow into the drip line of a tree designated for preservation.
 - If tree protection cannot be maintained for a tree throughout entire period required, the replacement of that tree will be required on an inch for inch basis prior to the issuance of any Certificate of Occupancy.
 - Regulated trees located off-site on adjacent properties that may be affected by construction operations must be protected defined herein.
 - The TPF shall consist of four-foot high orange snow fencing to be installed around the drip line of all trees designated to be saved. This fencing shall be supported by six-foot metal T-bar posts five-feet on center and driven a minimum of 24 inches into the ground. The TPF fencing shall remain upright and secure in place for the required time as specified above.
 - Prior to the release of the Performance Bond, the City of Rochester Hills Forestry Division needs to inspect all trees existing or planted, to identify any that pose a hazard to the safe use of the public right-of-way. Forestry may require the developer to remove and possibly replace any such trees.



American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

DATE	REVISION
08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.04.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW
	ISSUE

KEY PLAN

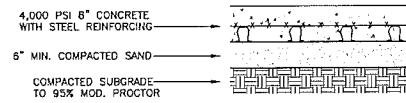
FSP PROJECT NO. AMH12.008
GW PROJECT NO. 17568.03

DRAWING TITLE
DEMOLITION PLAN

DRAWING NUMBER
SP-04

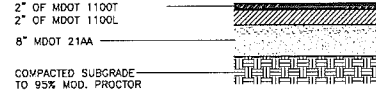


CITY FILE #99-007.4
NOT TO BE USED AS CONSTRUCTION DRAWINGS



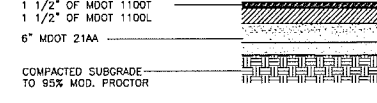
8" REINFORCED CONCRETE SLAB
NOT TO SCALE

NOTE:
PLACE 6" X 6" W2.9 X W2.9 WELDED WIRE MESH IN MIDDLE OF SLAB USING SEATS SPACED PER MFR. RECOMMENDATION.



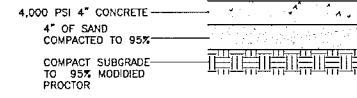
HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE

NOTE:
1. IF ANY OF THE EXISTING BASE CANNOT BE UTILIZED, IT SHALL BE REMOVED AND REPLACED WITH MDOT 21AA MATERIAL.
2. THE PLACEMENT OF THE FINAL LIFT OF ASPHALT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION HAS BEEN COMPLETED, OR AS DIRECTED BY THE ENGINEER.
3. A BOND COAT OF SS-1H EMISSION SHALL BE APPLIED (AT A RATE OF 0.10 GALLONS/S.Y. BETWEEN THE LEVELING AND WEARING COURSE WHEN 48 HOURS HAVE ELAPSED BETWEEN PLACEMENT.



STANDARD DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE

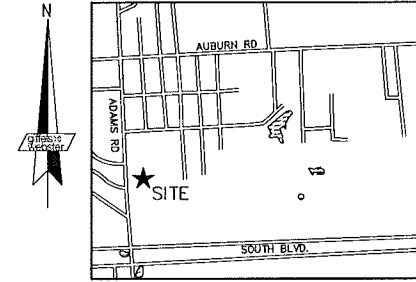
NOTE:
1. IF ANY OF THE EXISTING BASE CANNOT BE UTILIZED, IT SHALL BE REMOVED AND REPLACED WITH MDOT 21AA MATERIAL.
2. THE PLACEMENT OF THE FINAL LIFT OF ASPHALT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION HAS BEEN COMPLETED, OR AS DIRECTED BY THE ENGINEER.
3. A BOND COAT OF SS-1H EMISSION SHALL BE APPLIED (AT A RATE OF 0.10 GALLONS/S.Y. BETWEEN THE LEVELING AND WEARING COURSE WHEN 48 HOURS HAVE ELAPSED BETWEEN PLACEMENT.



4" CONCRETE SIDEWALK
NOT TO SCALE

BENCHMARK DATA

(CITY OF ROCHESTER HILLS) DATUM
SITE BENCHMARK NO. 1
ARROW ON HYDRANT, LOCATED AT EAST SIDE OF ADAMS +142' SOUTH OF S. BRIARVALE DRIVE ELEVATION = 856.88'
SITE BENCHMARK NO. 2
TOP OF HUT ON HYDRANT, LOCATED +/- 400' EAST OF ADAMS ON THE NORTH SIDE OF NORTH DRIVE BETWEEN S. BRIARVALE DRIVE AND S. GREY ROAD, ELEVATION = 873.64'

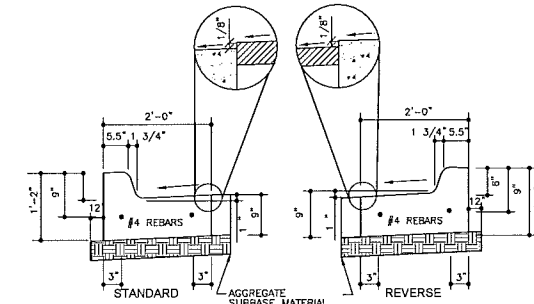


LOCATION MAP
(NOT TO SCALE)

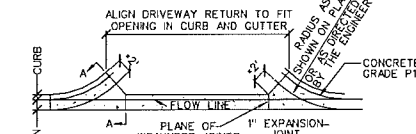
SCALE: 1" = 30'

NOTES:

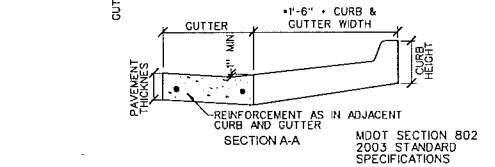
- THIS PARCEL IS LOCATED WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD AREA ZONE X (AREA DETERMINED TO BE OUTSIDE OF 0.2% ANNUAL CHANCE FLOOD PLAIN) IN ACCORDANCE WITH THE FEDERAL INSURANCE RATE MAP NUMBER 26125C0389F, EFFECTIVE DATE OF SEPTEMBER 29, 2006.
- TREE SIZES AND SPECIES ARE THE BEST ESTIMATION OF THE FIELD SURVEYOR. SPECIFIC QUESTIONS REGARDING INDIVIDUAL TREES SHOULD BE DIRECTED TO A QUALIFIED FORESTER.
- NO CERTIFICATION CAN BE MADE AS TO LIMITS OF OWNERSHIP.
- SEE ARCHITECTURAL PLAN FOR MORE IN-DEPTH INFORMATION PERTAINING TO THE PROPOSED BUILDING.
- SEE ARCHITECTURAL PLANS FOR SITE & PARKING SUMMARY
- ALL RADIAL DIMENSIONS ARE AT THE BACK OF CURB



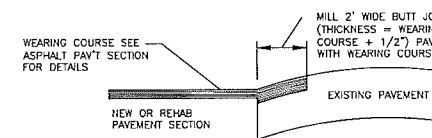
24" CONCRETE CURB & GUTTER
NOT TO SCALE



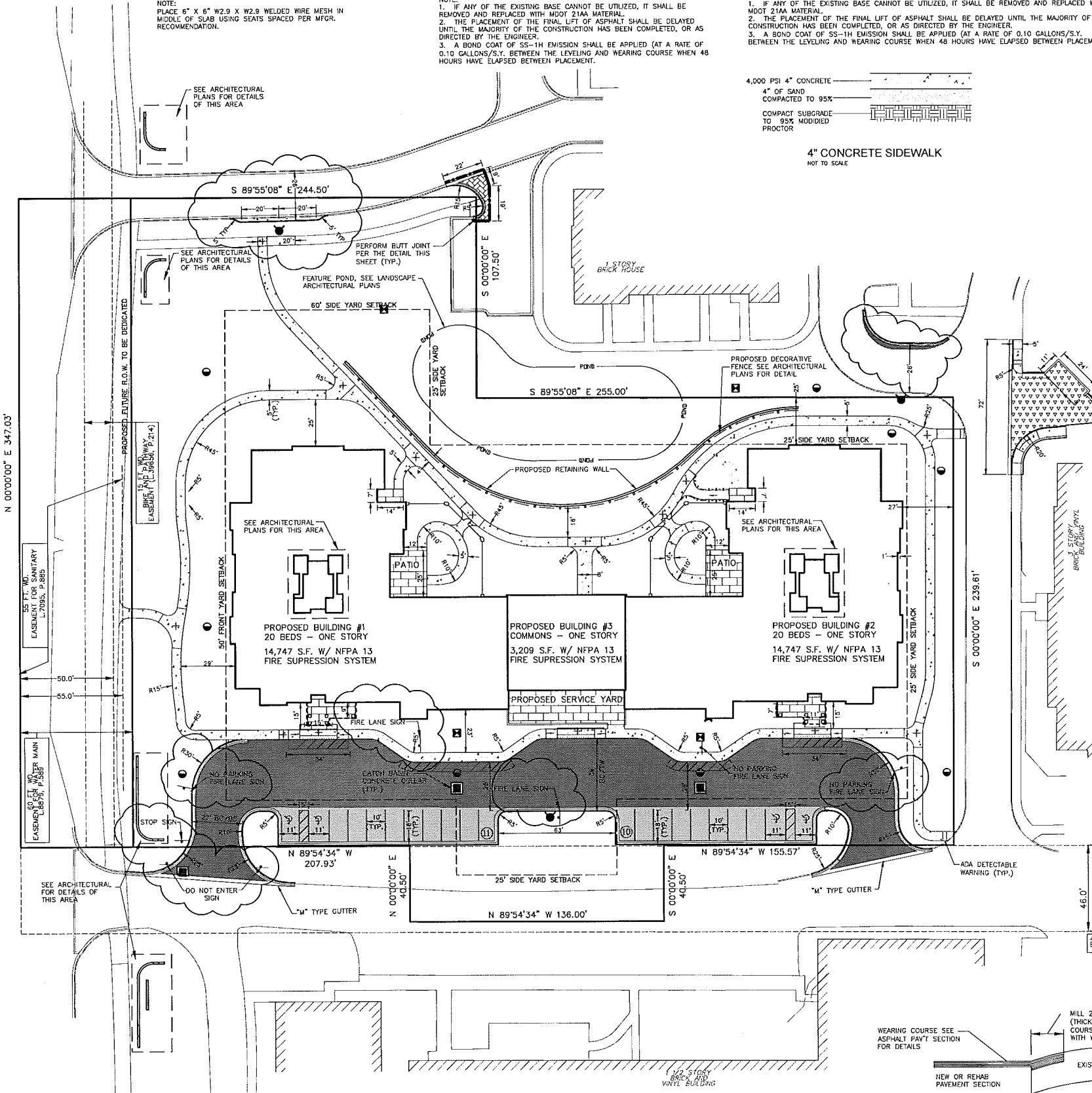
DRIVEWAY OPENING (DETAIL "M")
NOT TO SCALE



6" INTEGRAL CONCRETE CURB & WALK
NOT TO SCALE



BUTT JOINT
NOT TO SCALE



SOUTH ADAMS ROAD
(VARIABLE WIDTH)

FUSCO, SHAFFER & PAPPAS, INC.
ARCHITECTS AND PLANNERS

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American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.04.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW
	DATE
	ISSUE

KEY PLAN

FSP PROJECT NO. AMH12.003
GW PROJECT NO. 17563.03

DRAWING TITLE
SITE PLAN

DRAWING NUMBER
SP-05



CITY FILE #99-007.4



NOT TO BE USED AS CONSTRUCTION DRAWINGS

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

(R) = UTILITY SHOWN FROM RECORDS OR PLANS, & FIELD LOCATED WHERE POSSIBLE.

PRIOR TO THE PLANNED BUILDING IMPROVEMENTS, AND / OR CONSTRUCTION, THE RESPECTIVE UTILITY COMPANIES MUST BE NOTIFIED TO STAKE THE PRECISE LOCATION OF THEIR UTILITIES.

NOTES:

- 1) PROPOSED SYSTEM TO OUTLET TO EXISTING AMERICAN HOUSE DETENTION POND THROUGH STUB LEFT DURING ORIGINAL CONSTRUCTION.
- 2) CONTRACTOR TO BE RESPONSIBLE FOR ALL COORDINATION WITH OWNER OF FRANCHISE UTILITIES AND THE ASSOCIATED WORK.
- 3) SEE SP-03 FOR EXISTING UTILITY STRUCTURE INFORMATION CHART.

SANITARY SEWER BASIS OF DESIGN
Giffels Webster Project # 17568.03
Assumed Existing Campus (Buildings 1 - 9)

Unit factor based upon Oakland County Schedule of Unit Assignment Factors

Type of Unit	# of Units	Sub-Total
1 Bedroom/Studio	74	74
2 Bedroom	73	147
3 Bedroom	73	220
Total	441 Residence	0.30 per bed
		132.3 Units

Population per unit: 3.15 People / unit 417 People

Average Flow per Person = 100 gallons/person/day 41700 gallons/day
0.065 cfs

Peaking Factor = $18 + (\text{population in thousands})^{1/2} = 18 + 0.646 = 4.01$
 $4 + (\text{population in thousands})^{1/2} = 4 + 0.646$

Peak Flow = Peaking Factor x Average flow = $4.01 \times 0.065 = 0.259$ cfs

Existing 8" @ 0.42% handles 0.78 cfs
Proposed Building # 10

Unit factor based upon Oakland County Schedule of Unit Assignment Factors

Type of Unit	# of Units	Sub-Total
1 Bedroom/Studio	40	40
Total	40 Residence	0.30 per bed
		12 Units

Population per unit: 3.15 People / unit 38 People

Average Flow per Person = 100 gallons/person/day 3800 gallons/day
0.006 cfs

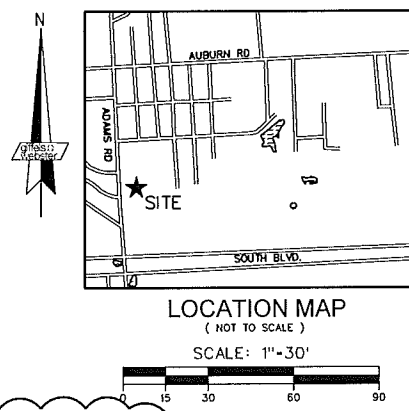
Peaking Factor = $18 + (\text{population in thousands})^{1/2} = 18 + 0.195 = 4.34$
 $4 + (\text{population in thousands})^{1/2} = 4 + 0.195$

Peak Flow = Peaking Factor x Average flow = $4.34 \times 0.006 = 0.026$ cfs

6" Pipe @ 1.00% handles 0.57 cfs
Calculated Flow Analysis

Proposed 6" @ 1.00%	0.026 cfs
Existing 8" @ 0.42%	0.259 cfs
Total Flow	0.284 cfs

Remaining Capacity in Existing 8" @ 0.42% 0.496 cfs



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STORM WATER DETENTION
Giffels Webster Project # 17568.03

*References Lehner Associates Plans City File #99-007
*12A Rochester American Detention Pond - 294,530 CF of storage provided
*12 Rochester American Detention Pond - 165,350 CF of storage required
129,180 CF of storage remaining

Proposed Building # 10
Total Contributory Area = 3.35 Acres

Native Soils:	Area (Acres)	Coefficient	t	C	CA
	1.45	0.25			0.3625
	0	0.15			0

Impervious areas:	Label	Area (Acres)	Coefficient	t	C	CA
	Pond	0.16	1			0.16
	Building	0.76	0.95			0.72
	Road, Curb, Walk & Patio	0.98	0.95			0.93
	Totals	3.35				2.18

Runoff coefficient, C = $\Sigma CA / \Sigma A = 2.18 / 3.35$
Runoff coefficient, C = 0.65

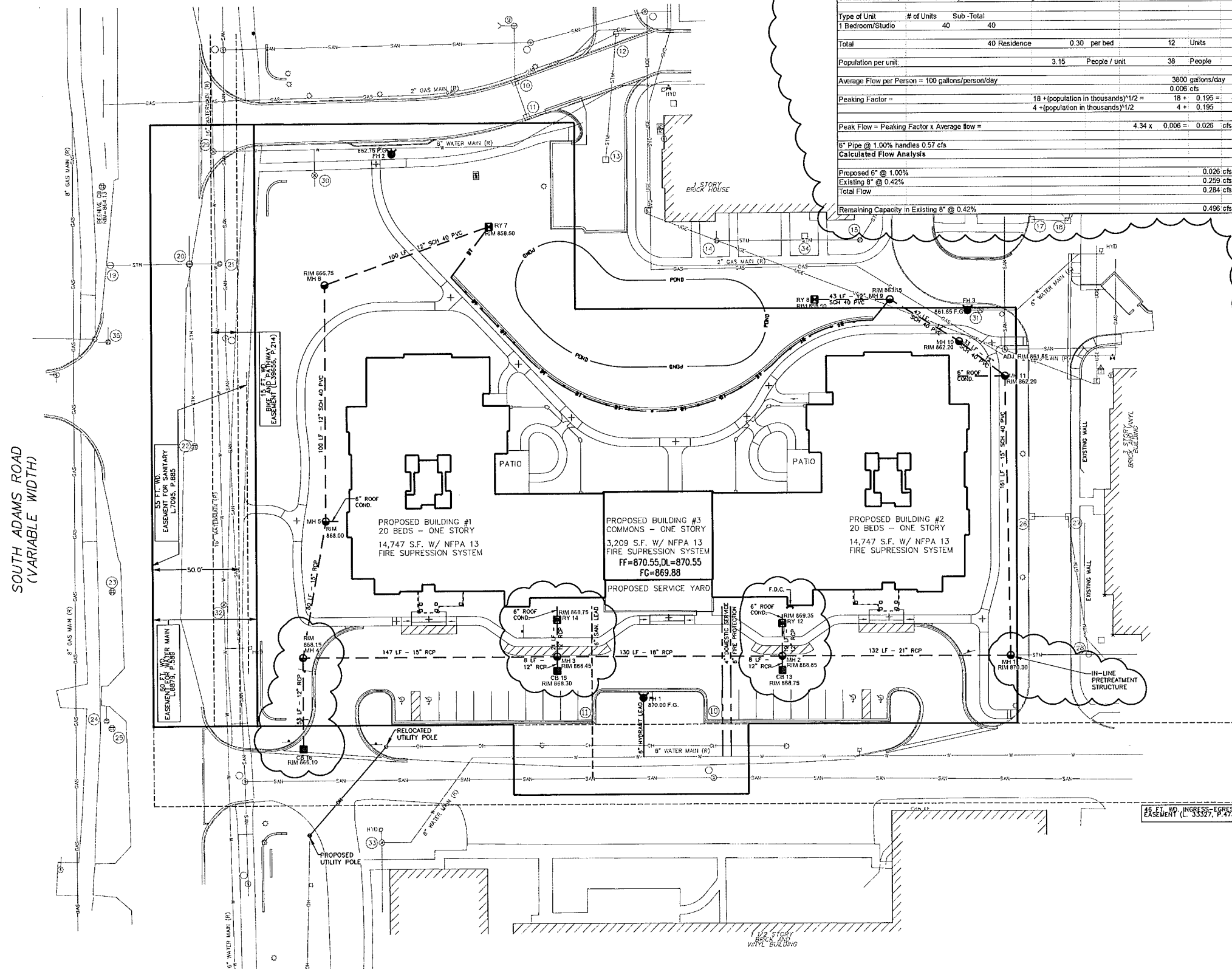
Volume required:
Design for:
25 Year detention per City of Rochester Hills
& Oakland County Water Resource Commissioner

Allowable Outflow:

$Q_a = 0.2$ cfs/Acre x 3.35 Acres
 $Q_a = 0.67$ cfs
 $Q_o = \frac{Q_a}{CA} = \frac{0.67}{2.18} = 0.31$ cfs/ac imp.

Calculate The Time of Concentration:
Type equation here.
 $T_{25} = -25 + \frac{8062.5}{20} - 25 \sqrt{\frac{8062.5}{0.31}}$
 $= 136.3$ Minutes

Calculate Volume Required:
 $V_{s25} = 12900 * T_{25} - 40 Q_o * T_{25}^2$
 $\frac{12900 * 136.3}{25} - 40 (0.31) (136.3)^2$
 $= 9210 + 215$ cu. ft./acre impervious
 $V_T = V_{s25}(A)(C) = 9210 (3.35) (0.65)$
 $= 20056$ cu. ft. Required



American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

- 08.14.13 SITE PLAN APPROVAL
- 06.28.13 SITE PLAN APPROVAL
- 06.10.13 OWNER REVIEW
- 05.09.13 OWNER REVIEW
- 04.22.13 FIRE MARSHAL REVIEW
- DATE ISSUE

FSP PROJECT NO. AMH12.008
GW PROJECT NO. 17568.03

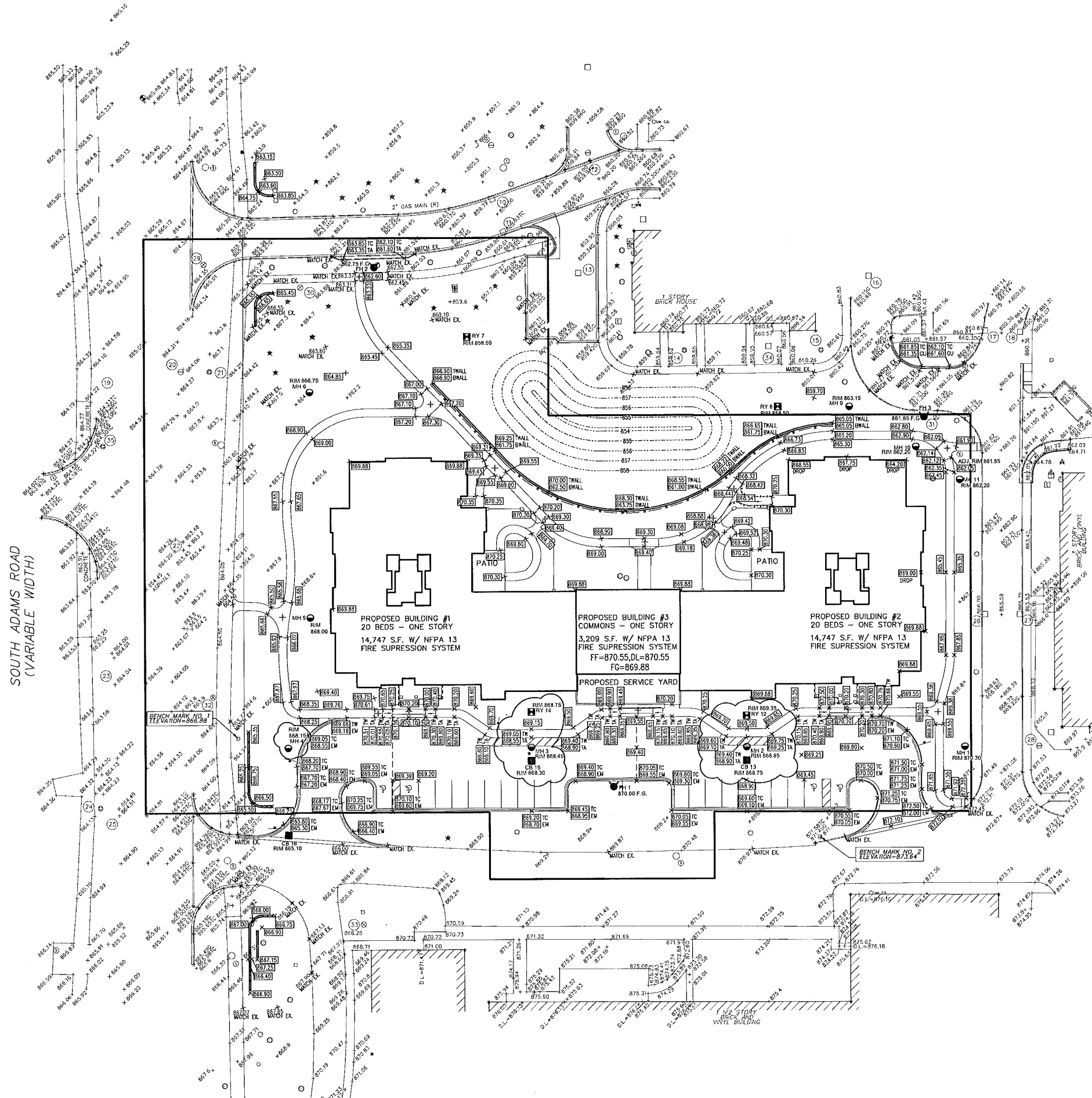
DRAWING TITLE
UTILITY PLAN

DRAWING NUMBER
SP-06



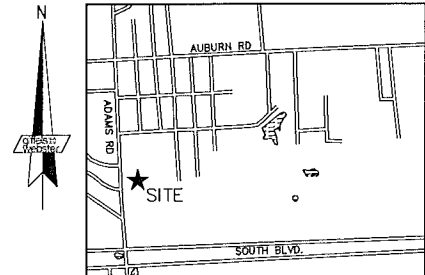
CITY FILE #99-007.4

NOT TO BE USED AS CONSTRUCTION DRAWINGS



BENCHMARK DATA

(CITY OF ROCHESTER HILLS) DATUM
 SITE BENCHMARK NO. 1
 ARROW ON HYDRANT, LOCATED AT EAST SIDE OF ADAMS +/- 140' SOUTH OF S. BRIARVALE DRIVE. ELEVATION = 856.88'
 SITE BENCHMARK NO. 2
 TOP OF HUT ON HYDRANT, LOCATED +/- 400' EAST OF ADAMS ON THE NORTH SIDE OF NORTH DRIVE BETWEEN S. BRIARVALE DRIVE AND S. GREY ROAD. ELEVATION = 873.64'



LOCATION MAP
(NOT TO SCALE)

SCALE: 1"=30'

FUSCO, SHAFFER & PAPPAS, INC.
 ARCHITECTS AND PLANNERS

30500 NORTHWESTERN HWY, SUITE 100
 FARMINGTON HILLS, MICHIGAN 48334
 PHONE: 248.932.8300 FAX: 248.932.8301
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 Surveyors
 Planners
 Landscape Architects
 Environmental Specialists
 6303 26 Mile Road, Suite 100
 Washington, MI 48094
 p (586) 781-8950
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American House
 SENIOR LIVING COMMUNITIES
 ROCHESTER HILLS, MICHIGAN

02.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.01.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW ISSUE

KEY PLAN

FSP PROJECT NO. AMH12.008
 GW PROJECT NO. 17568.03

DRAWING TITLE
GRADING PLAN

DRAWING NUMBER

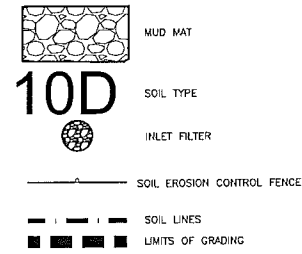
SP-07



CITY FILE #99-007.4

NOT TO BE USED AS CONSTRUCTION DRAWINGS

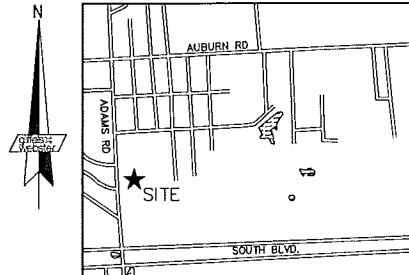
SOIL EROSION & SEDIMENT CONTROL LEGEND



SOIL EROSION CONTROL MAINTENANCE SCHEDULE

Activity	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Conduct Pre-Construction meeting									
Establish Contract Limits									
Identify and Protect Critical Areas and Filter Strips									
Install Temporary SESC Measures such as:									
a. Perimeter silt fence									
b. Inlet Protection									
c. Mud Mat									
Inspect and Maintain all SESC Measures									
Strip and Protect Topsoil (stage activity)									
Rough Grade (stage activity)									
Construct Aggregate Access Road(s)									
Street Sweeping									
Excavate and Construct Footing									
Temporary Seed & Mulch/Erosion Control Blankets									
Install Utilities									
Final Grade (stage activity)									
Spread Topsoil and Immediately Seed & Mulch or Sod (Use ECBs, netting, etc. per plan)									
Construct Superstructure									
Parking Lot Surfacing									
Remove Temporary SESC Measures (After site is stabilized)									

NOTE: THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY CONTRACTOR



LOCATION MAP (NOT TO SCALE)



FUSCO, SHAFFER & PAPPAS, INC.
ARCHITECTS AND PLANNERS

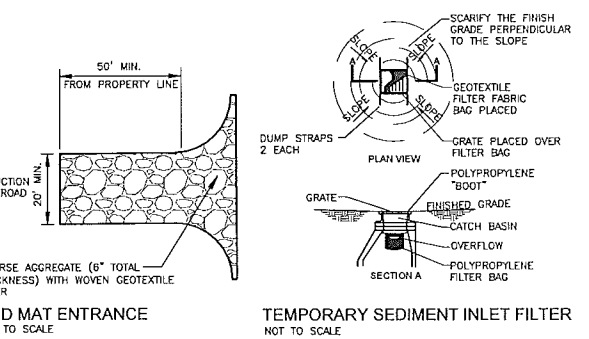
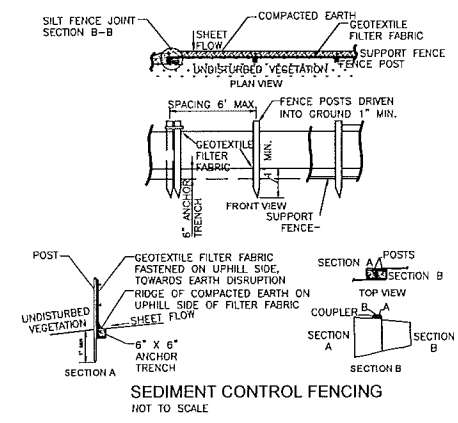
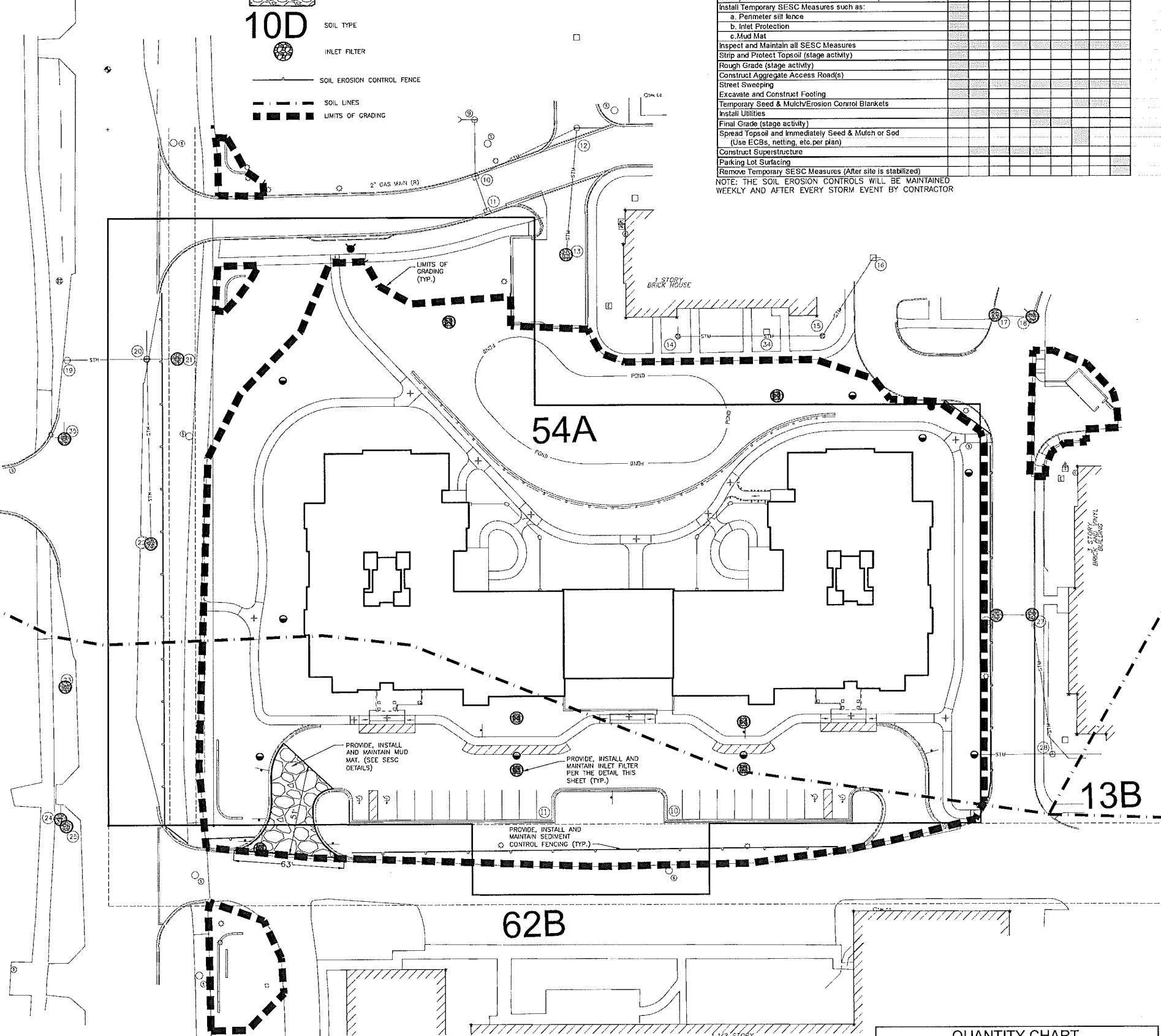
3650 NORTHWESTERN HWY., SUITE 100
FARMINGTON HILLS, MICHIGAN 48334
PHONE 248.932.8300 FAX 248.932.8301
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SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

SOUTH ADAMS ROAD (VARIABLE WIDTH)



SOIL TYPES - AS PROVIDED BY U.S. DEPT. OF AGRICULTURE

- 54A - MATHERTON SANDY LOAM, 0 TO 3 PERCENT SLOPES
- 62B - URBAN LAND-SPIKINS COMPLEX, 0 TO 8 PERCENT SLOPES
- 13B - OSHEMO-BOYER LOAMY SANDS, 0 TO 6 PERCENT SLOPES

QUANTITY CHART

ITEM	QUANTITY	UNIT
SILT FENCE	815	LF
INLET FILTER	18	EA
MUD MAT	1,711	SF



CITY FILE #99-007.4

NOT TO BE USED AS CONSTRUCTION DRAWINGS

KEY PLAN

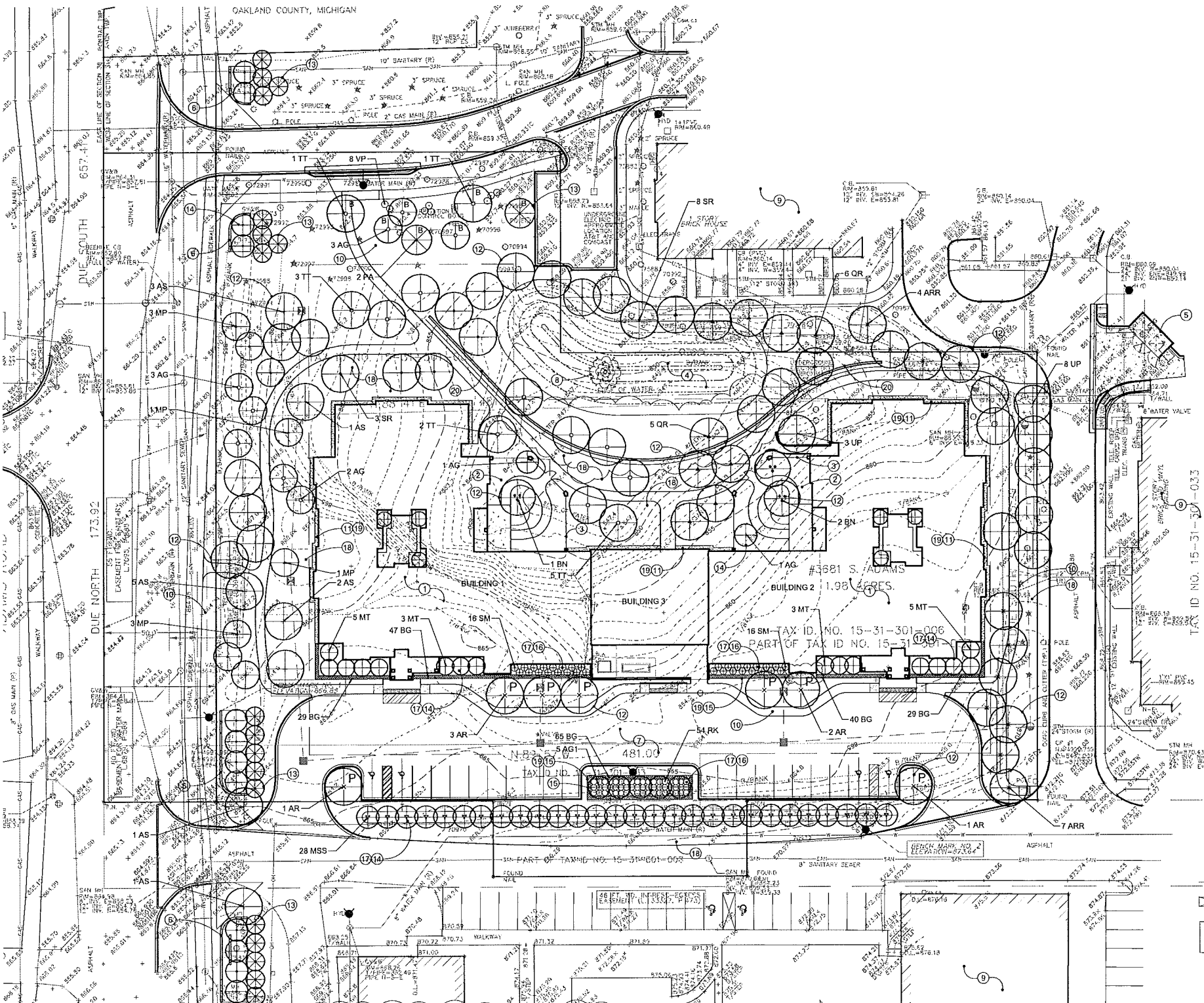
08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW
DATE	ISSUE

ESP PROJECT NO. AMH12.008
GW PROJECT NO. 17568.03

DRAWING TITLE
SOIL EROSION & SEDIMENT CONTROL PLAN

DRAWING NUMBER

SP-08



Site Landscape Tabulations

INTERIOR PARKING AREA LANDSCAPE REQUIREMENTS:

TOTAL VEHICULAR USE AREA = 17,964 SF

INTERIOR LANDSCAPE AREA REQUIRED: 5% OF THE TOTAL VEHICULAR USE AREA: 17,964 X 0.05 = 898 SF
TOTAL INTERIOR LANDSCAPE AREA PROVIDED: 1,776 SF

A. REQ'D DECID. SHADE TREES IN PARKING LOT AREAS: 1 TREE/150 SF OF REQUIRED INTERIOR LANDSCAPE AREA: 898 / 150 = 5.98 OR 6 TREES

TOTAL TREES REQ'D PER PARKING LOT AREA: 6
TOTAL TREES PROVIDED: 7

B. A MINIMUM OF ONE CANOPY TREE / 25 LF AND 1 ORNAMENTAL TREE / 35 LF OF PARKING LOT PERIMETER FACING R.O.W ALONG ADAMS ROAD IS REQUIRED:
125 LF / 25 = 5 CANOPY TREES
125 LF / 35 = 4 ORNAMENTAL TREES

TOTAL CANOPY TREES REQ'D: 5
TOTAL TREES PROVIDED: 2

TOTAL ORNAMENTAL TREES REQ'D: 4
TOTAL ORNAMENTAL TREES PROVIDED: 10

TOTAL EVERGREEN TREES PROVIDED: 10

R.O.W. STREET TREE REQUIREMENTS:
NOTE: TREES WERE PLACED OUTSIDE OF R.O.W DUE TO EXISTING SANITARY SEWER AND WATERMAIN EASEMENTS.

ADAMS ROAD:
440 LF / 35 = 13 DECID. AND ORNAMENTAL TREES (26 TOTAL)

TOTAL R.O.W. TREES REQUIRED: 26
TOTAL R.O.W. TREES PROVIDED: 26

REQUIRED BUFFER LANDSCAPE:
BUFFER AT NORTH PROPERTY LINE = 185 LF OF TYPE B BUFFER

REQUIRED:
DECIDUOUS CANOPY TREES: 2 / 100 LF = 2
EVERGREEN TREES: 2 / 100 LF = 2
ORNAMENTAL TREES: 1.5 / 100 LF = 3
SHRUBS: 4 / 100 LF = 8

PROVIDED:
DECIDUOUS CANOPY TREES: 2
EVERGREEN TREES: 2
ORNAMENTAL TREES: 3
SHRUBS: 8

REQUIRED TREE REPLACEMENTS:

TOTAL REGULATED TREES REMOVED: 54 (See Civil Engineering Drawings)
TOTAL NUMBER OF 2" CAL. TREES PROVIDED: 54

Note Key

- ① SENIOR LIVING FACILITY, SEE ARCHITECTURAL DRAWINGS
- ② DEMENTIA GARDEN, SEE ENLARGEMENT
- ③ PROPOSED FENCE
- ④ DETENTION BASIN, SEE SHEET L.102 FOR SEED MIX
- ⑤ PROPOSED DUMPSTERS WITH MASONRY SURROUND
- ⑥ PROPOSED SITE SIGNS, SEE ENLARGEMENTS
- ⑦ PARKING LOT, SEE CIVIL ENGINEERING DRAWINGS
- ⑧ PROPOSED FOUNTAIN
- ⑨ EXISTING OFFSITE BUILDING
- ⑩ PROPOSED CONCRETE WALK
- ⑪ PROPOSED 2" STONE MAINTENANCE STRIP, SEE TYPICAL DETAIL
- ⑫ DECIDUOUS TREE PLANTING, SEE TYP. DETAIL.
- ⑬ EVERGREEN TREE PLANTING, SEE TYP. DETAIL.
- ⑭ ORNAMENTAL TREE PLANTING, SEE TYP DETAIL
- ⑮ HEDGE PLANTINGS, SEE TYP. DETAIL.
- ⑯ SHRUB PLANTINGS, SEE TYP. DETAIL.
- ⑰ 3" DEPTH SHREDDED BARK MULCH IN PLANTING BEDS AND EVERGREEN TREE BEDS.
- ⑱ SEEDED LAWN ON 4" DEPTH TOPSOIL, TYP.
- ⑲ METAL EDGING BETWEEN LAWN AND LANDSCAPE BED.
- ⑳ PROPOSED SEGMENTAL RETAINING WALL, SEE TYP. DETAIL

NOTE: SEE SHEET L.102 FOR PLANT SCHEDULE

Parks and Forestry Note

Tree approval is required to plant any tree or shrub on the public right-of-way. All trees and shrubs must be planted at least 10' from the edge of any sidewalk. Shade trees are shrubs must be planted at least 5' from the edge of the public right-of-way. Existing and proposed trees must be protected at least 12' from the edge of the public right-of-way. No trees or shrubs may be planted within the cross-gutter area formed at the intersection of any street right-of-way lines at a distance along each side of 20' from their point of intersection. No trees or shrubs may be planted in a triangular area formed at the intersection of any driveway with a public roadway at a distance along each side of 15' from their point of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 3' from an underground utility, unless the City's Landscape Architect requires a greater distance.

Prior to the release of the performance bond, the City of Rochester Hills Forestry Division shall inspect all landscape plantings including but not limited to existing trees, replacement trees, buffer plantings and parking islands.

Regulated Tree Replacement Legend

- Tilia tomentosa (Silver Linden) - Qty: 10
- Syringa reticulata (Japanese Tree Lilac) - Qty: 11
- Ulmus americana 'Princeton' (Princeton American Elm) - Qty: 11
- Quercus rubra (Northern Red Oak) - Qty: 11
- Acer rubrum 'Red Point' (Red Point Red Maple) - Qty: 11

Notes: See Site Tabulations this sheet and Plant Schedule Sheet L.102

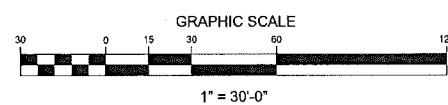
Landscape Maintenance

LANDSCAPING REQUIRED BY THIS ORDINANCE SHALL BE MAINTAINED IN A HEALTHY, NEAT AND ORDERLY APPEARANCE, FREE FROM REFUSE AND DEBRIS. ALL UNHEALTHY AND DEAD PLANT MATERIAL SHALL BE REPLACED IMMEDIATELY, UNLESS THE SEASON IS NOT APPROPRIATE FOR REPLACING, IN WHICH CASE SUCH PLANT MATERIAL SHALL BE REPLACED AT THE BEGINNING OF THE NEXT PLANTING SEASON. THE OWNER SHALL INSURE PERPETUAL AND MANDATORY MAINTENANCE AND/OR REPLACEMENT OF VEGETATIVE PLANTINGS PURSUANT TO THE APPROVED LANDSCAPE PLAN.

ALL PROPOSED LANDSCAPE AND IRRIGATION MAINTENANCE AND GUARANTEE SHALL BE FOR A PERIOD OF TWO (2) YEARS FOLLOWING CITY APPROVAL. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTINGS INCLUDING BUT NOT LIMITED TO EXISTING TREES, REPLACEMENT TREES, BUFFER PLANTINGS, AND PARKING LOT ISLANDS.

ALL LANDSCAPED AREAS WILL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM. ALL IRRIGATION WILL BE BETWEEN THE HOURS OF 12am AND 5am IN ACCORDANCE WITH CITY OF ROCHESTER HILLS ORDINANCE. AN IRRIGATION PLAN WILL BE SUBMITTED PRIOR TO STAFF APPROVAL OF THE FINAL SITE PLAN

NOT TO BE USED FOR CONSTRUCTION DRAWINGS



08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW ISSUE

KEY PLAN

ESP PROJECT NO.

DRAWING TITLE

OVERALL LANDSCAPE PLAN

DRAWING NUMBER

L.100

08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW ISSUE

KEY PLAN

FSP PROJECT NO.

DRAWING TITLE

LANDSCAPE ENLARGEMENTS

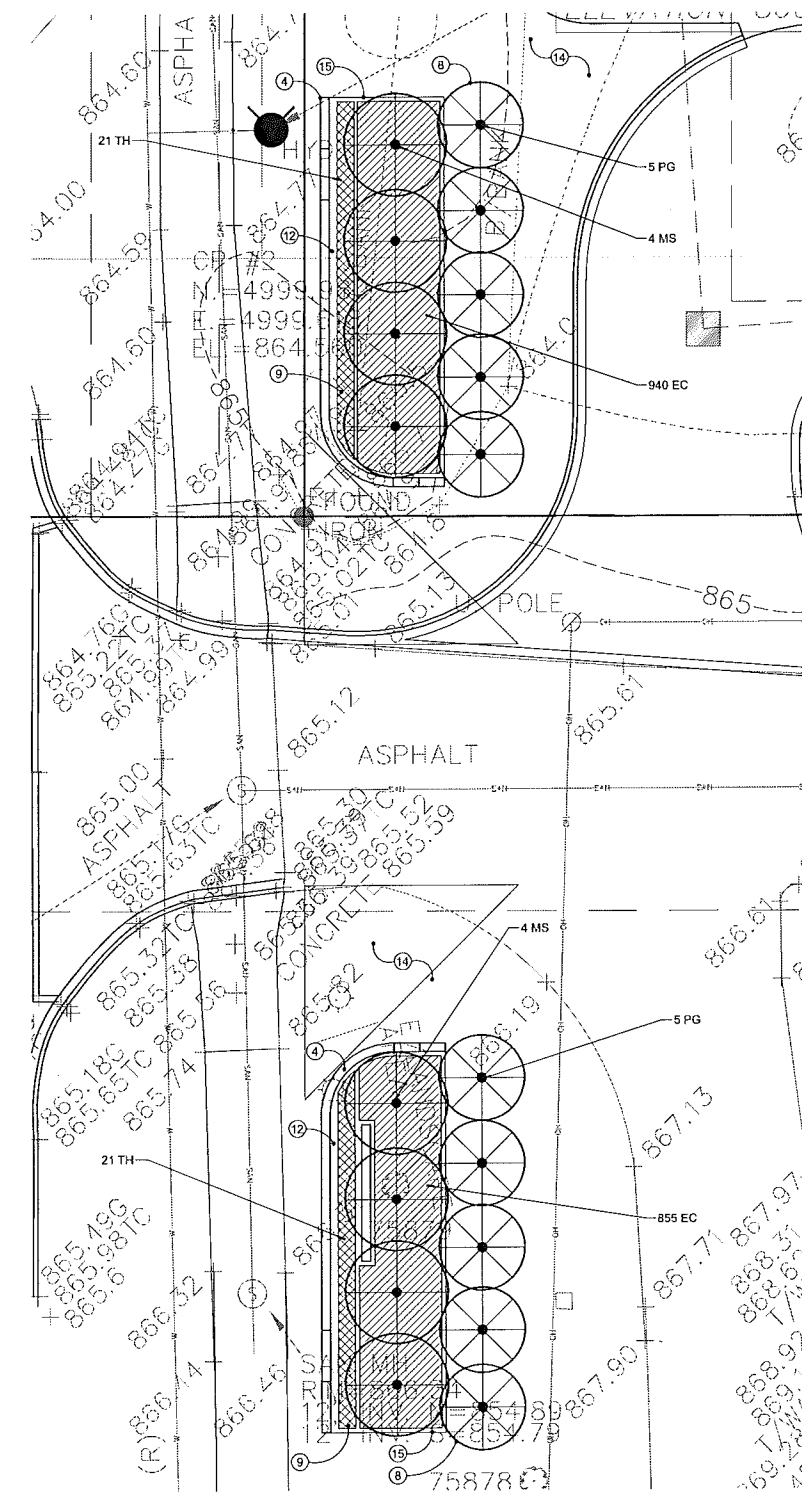
DRAWING NUMBER

L.101

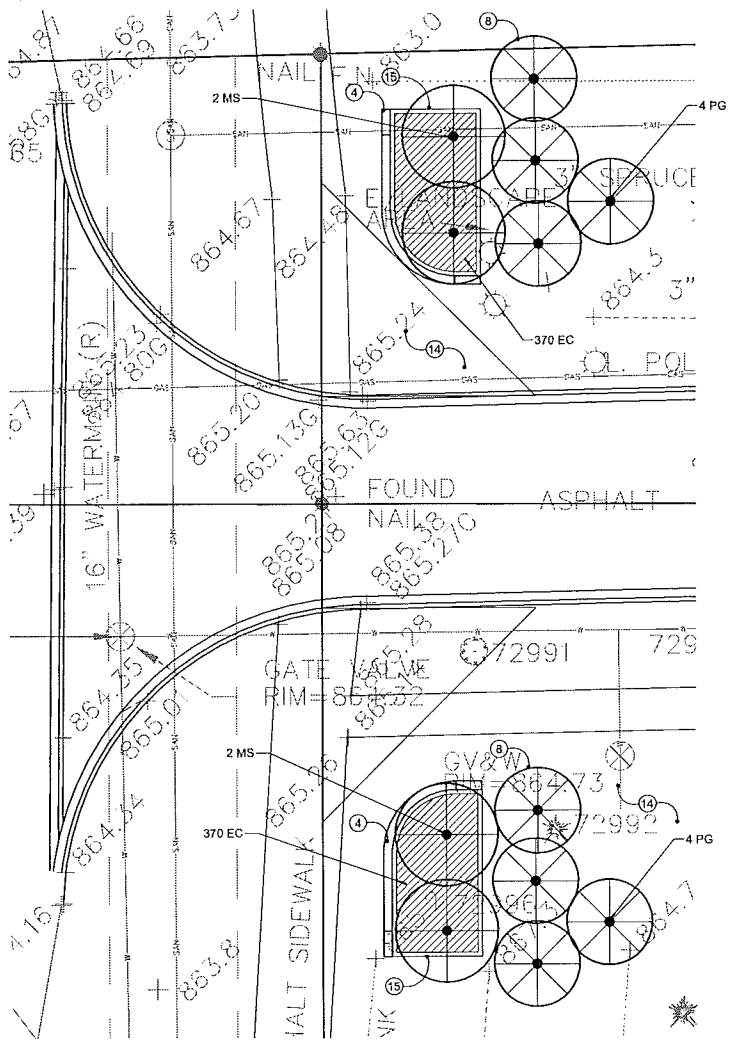
CITY FILE #99-007.4

Note Key

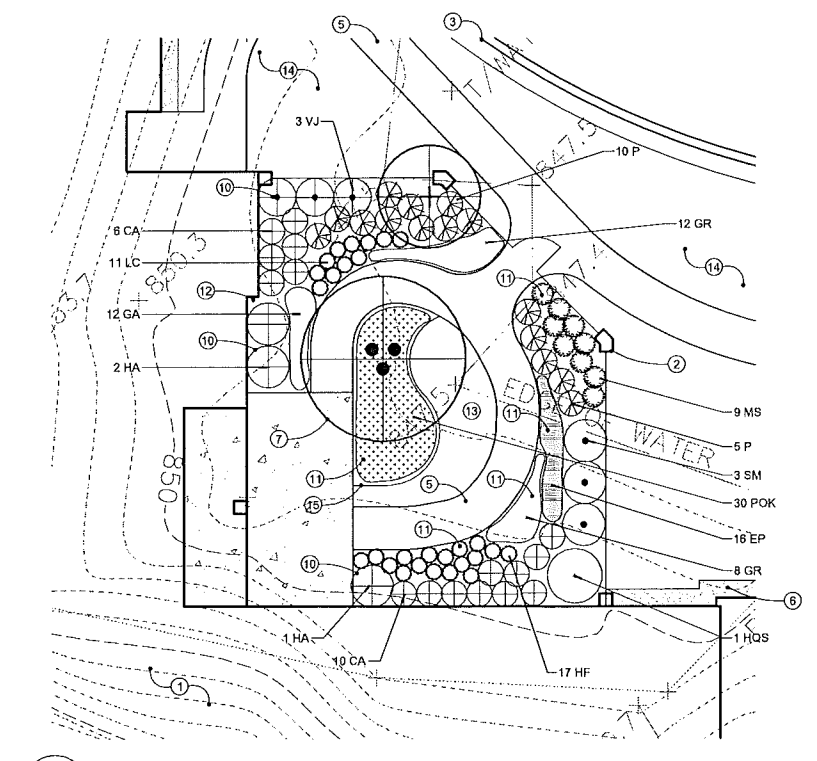
- | | |
|---|---|
| 1 SENIOR LIVING FACILITY, SEE ARCHITECTURAL DRAWINGS | 9 HEDGE PLANTINGS, SEE TYP. DETAIL. |
| 2 PROPOSED FENCE MASONRY PIERS | 10 SHRUB PLANTINGS, SEE TYP. DETAIL. |
| 3 PROPOSED SEGMENTAL RETAINING WALL, SEE TYP. DETAIL | 11 PERENNIAL PLANTINGS, SEE TYP. DETAIL. |
| 4 PROPOSED SITE SIGN AND RETAINING WALLS, SEE ARCHITECTURAL DRAWINGS | 12 3" DEPTH SHREDDED BARK MULCH IN PLANTING BEDS AND EVERGREEN TREE BEDS. |
| 5 PROPOSED CONCRETE WALK | 13 SODDED LAWN ON 4" DEPTH TOPSOIL, TYP. |
| 6 PROPOSED 2" STONE MAINTENANCE STRIP, SEE OVERALL PLAN, SEE TYPICAL DETAIL | 14 SEEDED LAWN ON 4" DEPTH TOPSOIL, TYP. |
| 7 DECIDUOUS TREE PLANTING, SEE TYP. DETAIL. | 15 METAL EDGING BETWEEN LAWN AND LANDSCAPE BED. |
| 8 EVERGREEN TREE PLANTING, SEE TYP. DETAIL. | |
- NOTE: SEE SHEET L.102 FOR PLANT SCHEDULE



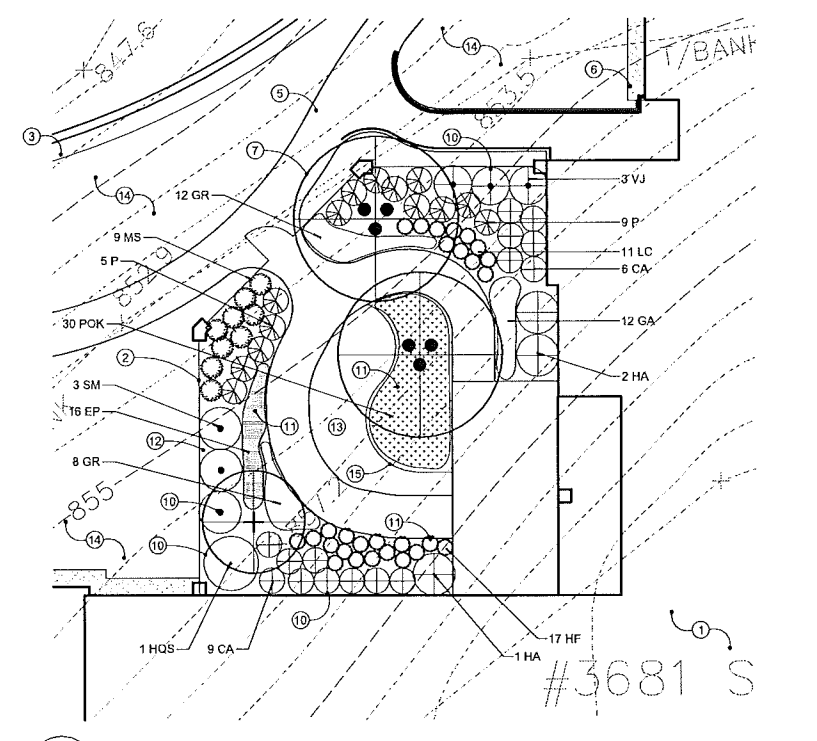
SITE SIGN - SOUTH ENTRANCE ENLARGEMENT
SCALE: 1" = 10'-0"



SITE SIGN - NORTH ENTRANCE ENLARGEMENT
SCALE: 1" = 10'-0"



WEST DEMENTIA GARDEN ENLARGEMENT
SCALE: 1" = 10'-0"

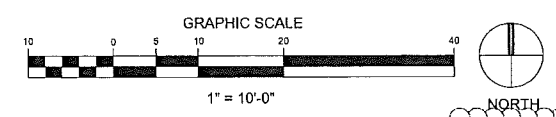


EAST DEMENTIA GARDEN ENLARGEMENT
SCALE: 1" = 10'-0"

3 FULL WORKING DAYS
BEFORE YOU DIG CALL



NOT TO BE USED FOR CONSTRUCTION DRAWINGS



Plant Schedule

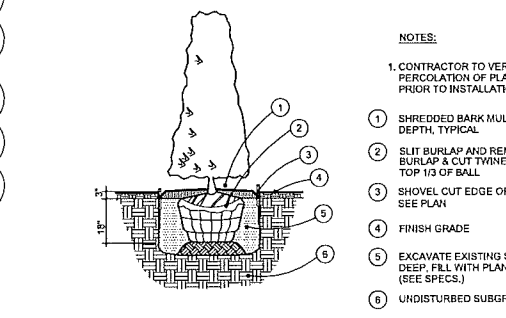
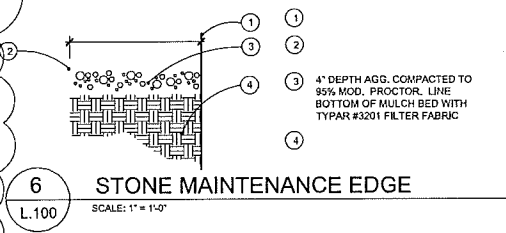
Trees										
sym.	qty.	botanical name	common name	size	spacing	root	ht/spd	comments	unit cost	total cost
AG	9	Amelanchier x g. 'Autumn Brilliance'	Autumn Brilliance Serviceberry	7' 8"	as shown	B&B		Minimum 5 stems	\$ 300.00	\$ 2,700.00
AG1	5	Amelanchier x g. 'Autumn Brilliance'	Autumn Brilliance Serviceberry	3" cal.	as shown	B&B		Single straight stem	\$ 450.00	\$ 2,250.00
AR	7	Acer r. 'Armstrong'	Armstrong Red Maple	3" cal.	as shown	B&B		Single straight stem	\$ 425.00	\$ 2,975.00
ARR	11	Acer r. 'Red Point'	Red Point Red Maple	2" cal.	as shown	B&B		Single straight stem	\$ 400.00	\$ 4,400.00
AS	13	Acer s. 'Green Mountain'	Green Mountain Sugar Maple	2" cal.	as shown	B&B		Single straight stem	\$ 400.00	\$ 5,200.00
BN	3	Betula nigra 'Heritage'	Heritage River Birch	12-14'	as shown	B&B		Minimum 3 stems	\$ 325.00	\$ 975.00
MP	8	Malus 'Prairie Fire'	Prairie Fire Crabapple	3" cal.	as shown	B&B		Single straight stem	\$ 250.00	\$ 2,000.00
MS	12	Malus sargontii	Sargent Crabapple	3" cal.	as shown	B&B		Single straight stem	\$ 250.00	\$ 3,000.00
MSS	28	Malus s. 'Snowdrift'	Snowdrift Crabapple	7-8'	as shown	B&B		Minimum 5 stems	\$ 250.00	\$ 7,000.00
MT	16	Malus s. 'Tina'	Tina Sargent Crabapple	3" cal.	as shown	B&B		Single straight stem	\$ 250.00	\$ 4,000.00
PA	2	Picea abies	Norway Spruce	6'	as shown	B&B		Unsheared, branched to ground	\$ 325.00	\$ 650.00
PG	18	Picea glauca	White Spruce	6'	as shown	B&B		Unsheared, branched to ground	\$ 325.00	\$ 5,850.00
QR	11	Gleditsia l. 'Skyline'	Skyline Honeylocust	2" cal.	as shown	B&B		Single straight stem	\$ 400.00	\$ 4,400.00
SR	11	Syringa reticulata	Japanese Tree Lilac	2" cal.	as shown	B&B		Single straight stem	\$ 375.00	\$ 4,125.00
TT	12	Tilia tomentosa	Silver Linden	2" cal.	as shown	B&B		Single straight stem	\$ 400.00	\$ 4,800.00
UP	11	Ulmus 'Princeton'	Princeton American Elm	2" cal.	as shown	B&B		Single straight stem	\$ 400.00	\$ 4,400.00
Shrubs										
BG	294	Buxus 'Green Gem'	Green Gem Boxwood	24"	as shown	B&B			\$ 55.00	\$ 16,170.00
CA	32	Clethra a. 'Hummingbird'	Hummingbird Summersweet	5 gal.	as shown	cont	24" ht.		\$ 45.00	\$ 1,440.00
HA	6	Hydrangea 'Annabella'	Aronwood Viburnum	30"	as shown	B&B			\$ 60.00	\$ 360.00
HQS	2	Hydrangea q. 'Snow Queen'	Snow Queen Oakleaf Hydrangea	30"	as shown	B&B			\$ 60.00	\$ 120.00
P	30	Peony 'Sarah Bernhardt'	Sarah Bernhardt Peony	5 gal.	as shown	cont	24" ht.		\$ 50.00	\$ 1,500.00
RK	54	Rosa 'Knockout'	Red Knockout Rose	3 gal.	as shown	cont			\$ 50.00	\$ 1,700.00
SM	38	Syringa m. 'Miss Kim'	Miss Kim Dwarf Lilac	30"	as shown	B&B			\$ 55.00	\$ 2,090.00
TH	42	Taxus x m. 'Hicksii'	Hicks Yew	30"	as shown	B&B			\$ 95.00	\$ 3,990.00
VJ	6	Viburnum x. 'Juddi'	Judd Fragrant Viburnum	30"	as shown	B&B			\$ 85.00	\$ 510.00
VP	8	Viburnum p.l. 'Maresii'	Maresii Doublefile Viburnum	36"	as shown	B&B			\$ 105.00	\$ 840.00
Perennials										
EP	32	Echinacea p. 'Magnus'	Magnus Purple Coneflower	1 gal.	18" o.c.	cont.			\$ 12.00	\$ 384.00
GA	24	Asilbe x a. 'Glut'	Glut Asilbe	1 gal.	18" o.c.	cont.			\$ 12.00	\$ 288.00
GR	40	Geranium s. 'Rozanne'	Rozanne Geranium	1 gal.	24" o.c.	cont.			\$ 12.00	\$ 480.00
HF	34	Hosta 'Francee'	Francee Hosta	1 gal.	as shown	cont.			\$ 12.00	\$ 408.00
LC	22	Leucanthemum x s. 'Crazy Daisy'	Crazy Daisy 'Shasta' Daisy	1 gal.	15" o.c.	cont.			\$ 12.00	\$ 264.00
MS	18	Miscanthus s. 'Adagio'	Adagio Japanese Silver Grass	3 gal.	as shown	cont.			\$ 25.00	\$ 450.00
POK	60	Pennisetum o. 'Karlsey Rose'	Karlsey Rose Dwarf Fountain Grass	1 gal.	as shown	cont.			\$ 12.00	\$ 720.00
EC	68	Euonymus coloratus	Purple Leaf Winter Creeper	FLATS	8" o.c.	cont.		36 Cell Flats	\$ 55.00	\$ 3,630.00
VM	240	Vinca minor	Nyrtle	1 gal.	12" o.c.	cont.			\$ 12.00	\$ 2,880.00
									total estimate	\$ 96,949.00

DETENTION SEED MIX:

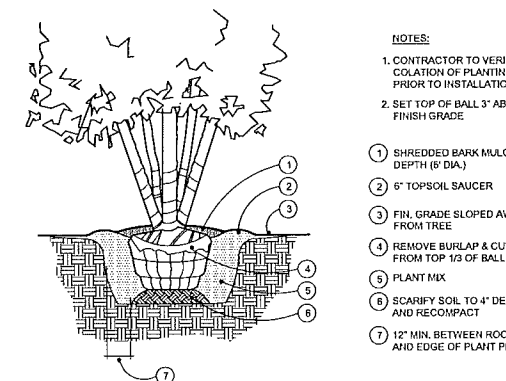
Hearland Restoration Services 260.489.8511
OR
Approved Equal
Midwestern Native Local Grasses Seed Mixes
Midwestern Forb Enhanced Mix: Prairie Mix (MF3), (without Big Bluestem)

2,300,000 (CBS) per acre
Approximate mix weight per acre: 39 lbs
31.3% Grasses/Sedges/Rushes 59.5% Forbs 18.2% Temporary Cover Grass

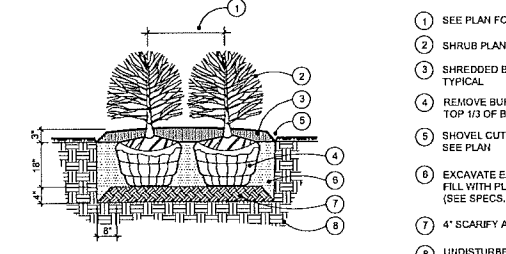
Scientific Name	Common Name	% CBS
Grasses/Sedges/Rushes		
Elymus canadensis	Canada Wild Rye	25.01%
Panicum virgatum	Prairie Switch Grass	21.51%
Sorghastrum nutans	Little Bluestem	24.43%
Sorghastrum nutans	Indian Grass	28.05%
		100.00%
Forbs		
Achillea tuberosa	Butterfly Milkweed	0.62%
Aster laevis	Smooth Blue Aster	2.83%
Aster non-aemulae	New England Aster	6.17%
Careopsis hirsuta	Tall Conehead	3.88%
Echinacea pallida	Pale Coneflower	0.45%
Eryngium yuccifolium	Rattlesnake Master	2.77%
Euphorbia graniflora	Leopards Foot Goldenrod	6.10%
Helopsis helianthoides	Falsa Sunflower	2.29%
Lespedeza capitata	Round-headed Bushclover	1.45%
Liatris spicata	Mountain Blazing Star	0.59%
Monarda fistulosa	Wild Bergamot	0.81%
Pentstemon digitalis	Foxglove Beard Tongue	14.24%
Pyrolanthemum virginicum	Mountain Mint	9.45%
Rudbeckia hirta	Yellow Coneflower	7.36%
Rudbeckia hirta	Black-eyed Susan	7.37%
Salpiglosson integratum	Rosin Weed	0.53%
Silphium laciniatum	Prairie Dock	0.39%
Solidago nemoralis	Old Field Goldenrod	6.08%
Solidago rigida	Suffr Goldenrod	6.18%
Tridacena orbiculata	Ohio Spottedwort	3.33%
Vernonia altissima	Honey Verbena	5.81%
Vernonia altissima	Tall Ironweed	4.50%
		100.00%
Temporary Cover Grass		
Avena sativa	Seed Oats	100.00%
		100.00%



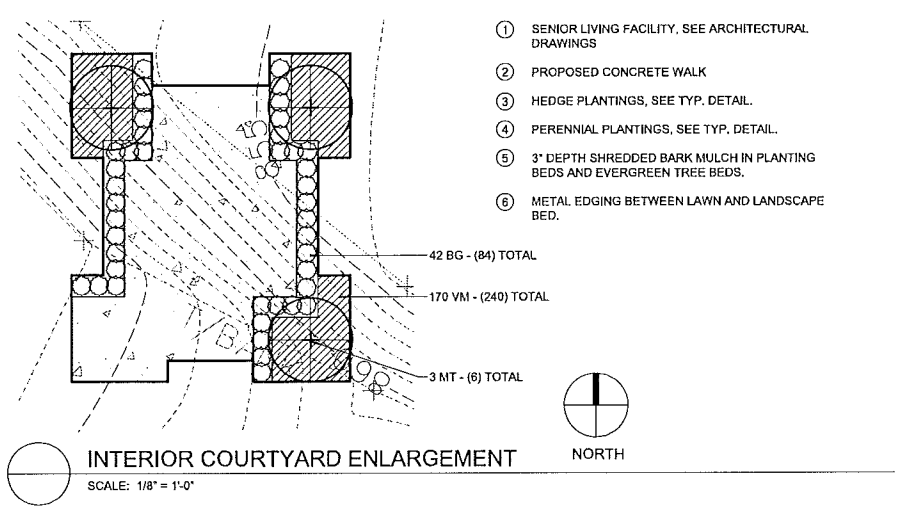
5 HEDGE PLANTING DETAIL
L.100 NOT TO SCALE



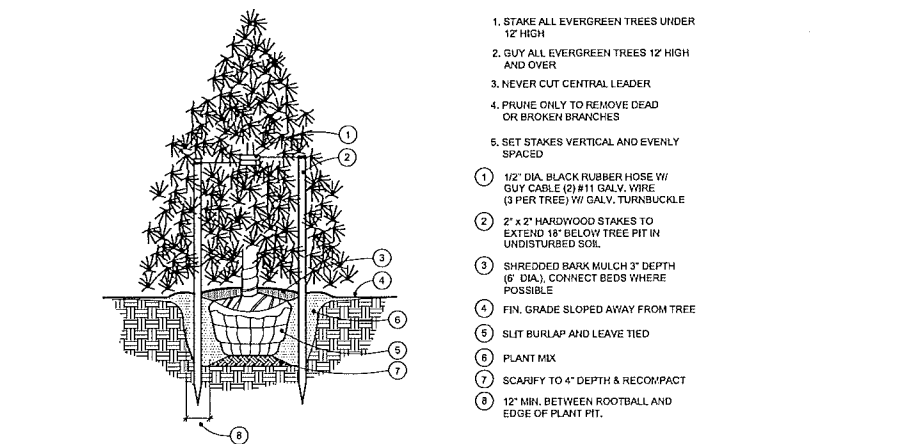
4 MULTISTEM TREE PLANTING DETAIL
L.100 NOT TO SCALE



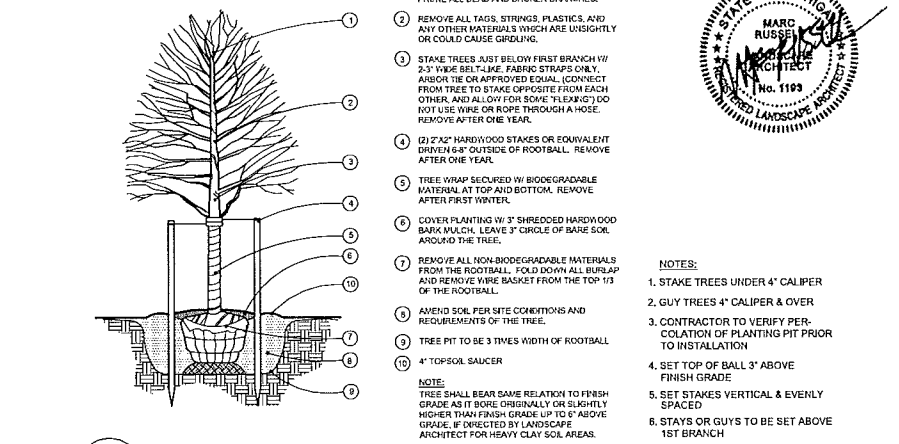
3 SHRUB PLANTING DETAIL
L.101 NOT TO SCALE



2 INTERIOR COURTYARD ENLARGEMENT
L.100 SCALE: 1/8" = 1'-0"



1 EVERGREEN TREE PLANTING DETAIL
L.100 NOT TO SCALE



1 DECIDUOUS TREE PLANTING DETAIL
L.100 NOT TO SCALE

3 FULL WORKING DAYS BEFORE YOU DIG CALL

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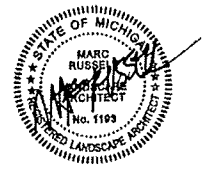
7 RETAINING WALL
L.101 NOT TO SCALE

FUSCO, SHAFFER & PAPPAS, INC.
ARCHITECTS AND PLANNERS
3540 NORTHWESTERN HWY. SUITE 100
FARMINGTON HILLS, MICHIGAN 48331
PHONE 248.932.8300 FAX 248.932.8301

RUSSELL DESIGN
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114 Rayson Street Suite 2A Northville, MI 48167
ph. 248.374.3222 fax 248.374.3463

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08.14.13	SITE PLAN APPROVAL
06.28.13	SITE PLAN APPROVAL
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW ISSUE

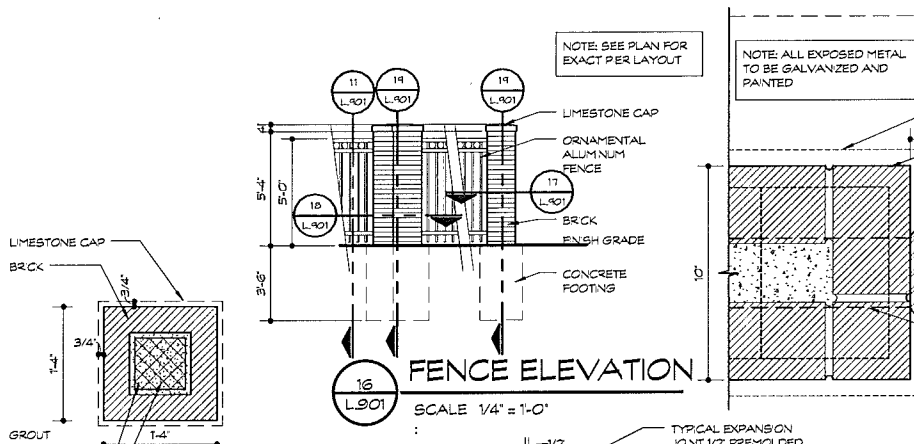


KEY PLAN
FSP PROJECT NO.
DRAWING TITLE
ENLARGEMENTS & LANDSCAPE DETAILS
DRAWING NUMBER
L.102

NOT TO BE USED FOR CONSTRUCTION DRAWINGS

CTF FILE #99-001-4

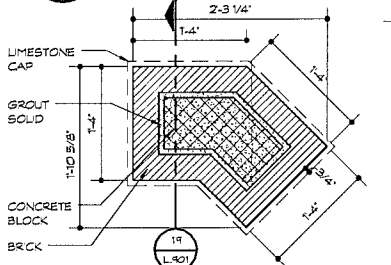
NOT TO BE USED FOR CONSTRUCTION DRAWINGS



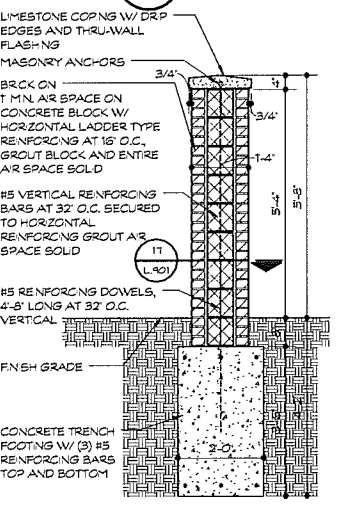
FENCE ELEVATION SCALE 1/4" = 1'-0"



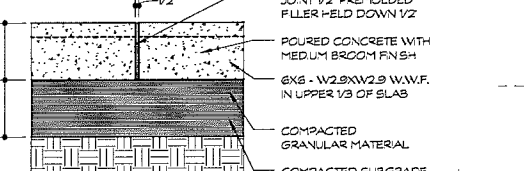
PIER PLAN SCALE 1 = 1'-0"



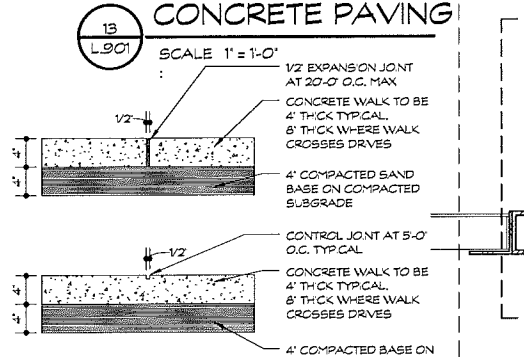
PIER PLAN SCALE 1 = 1'-0"



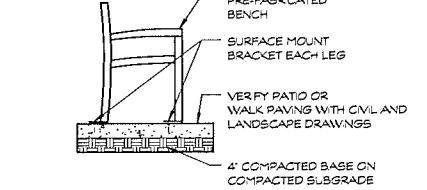
PIER SECTION SCALE 1/2" = 1'-0"



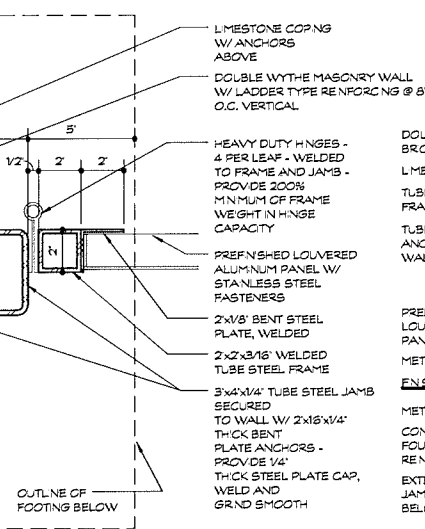
CONCRETE PAVING SCALE 1" = 1'-0"



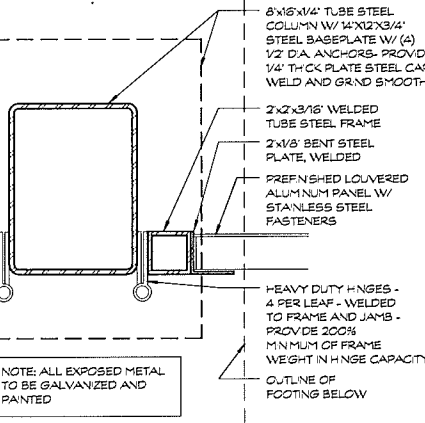
CONCRETE CONTROL/EXPANSION JOINTS SCALE 1" = 1'-0"



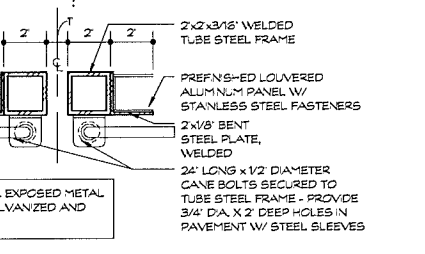
BENCH SCALE 1/2" = 1'-0"



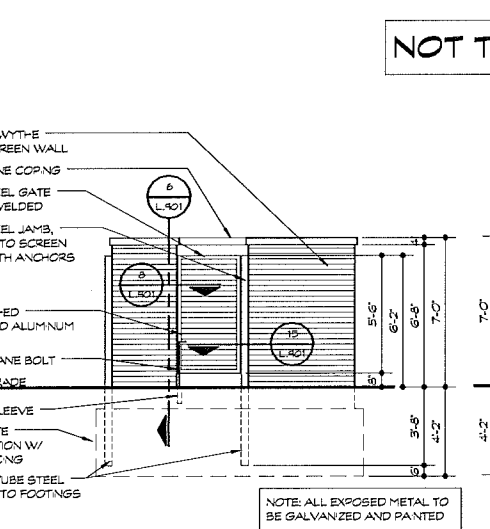
GATE JAMB SECTION SCALE 3" = 1'-0"



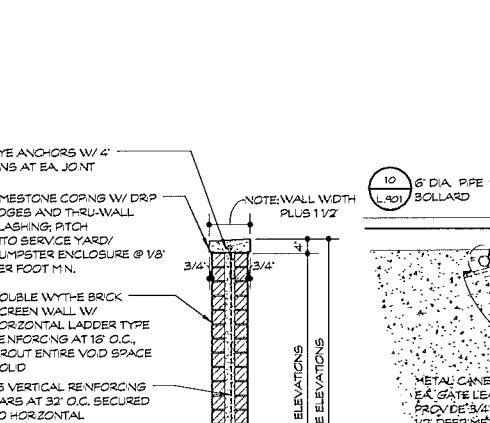
GATE JAMB SECTION SCALE 3" = 1'-0"



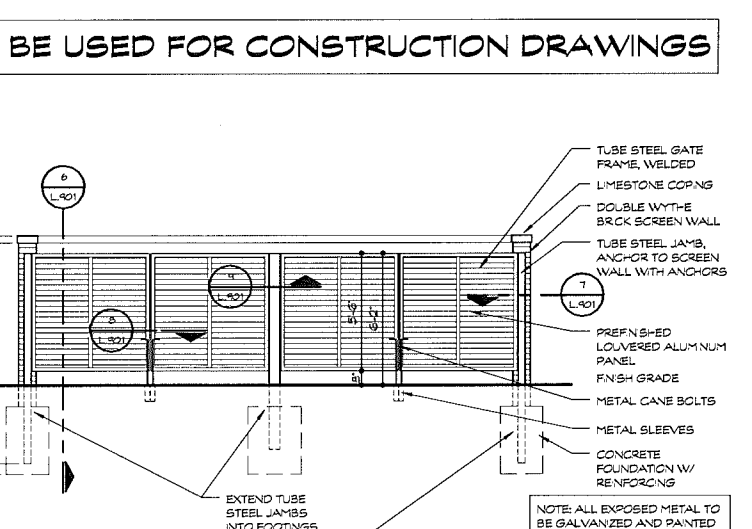
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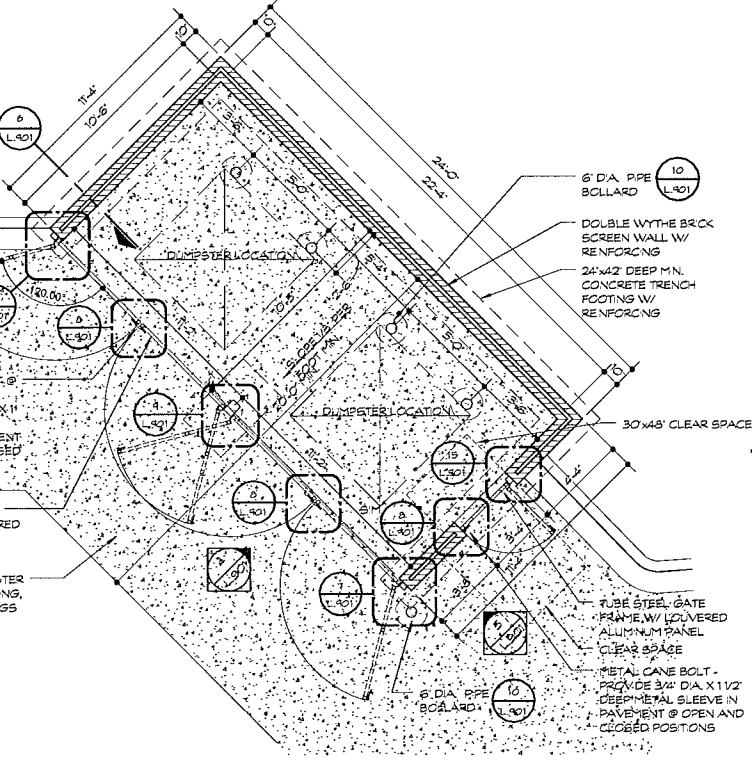
GATE ELEVATION SCALE 1/4" = 1'-0"



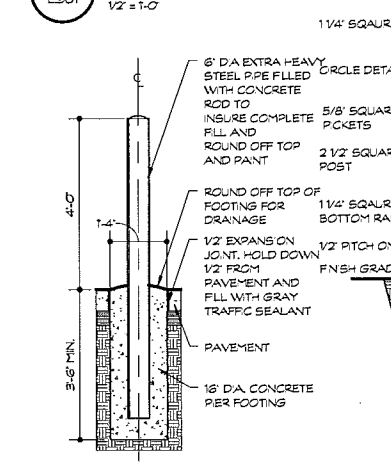
SCREEN WALL SECTION SCALE 1/2" = 1'-0"



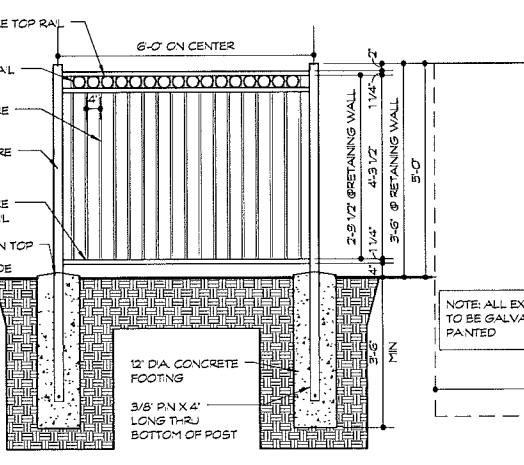
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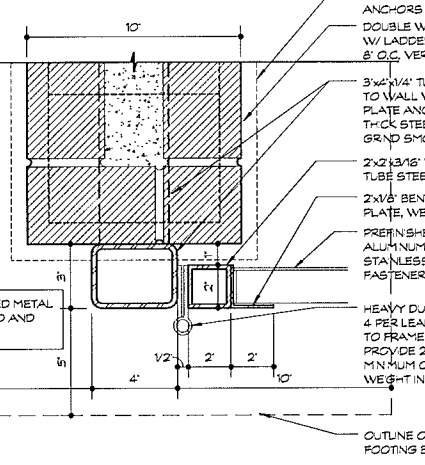
DUMPSTER ENCLOSURE PLAN SCALE 1/4" = 1'-0"



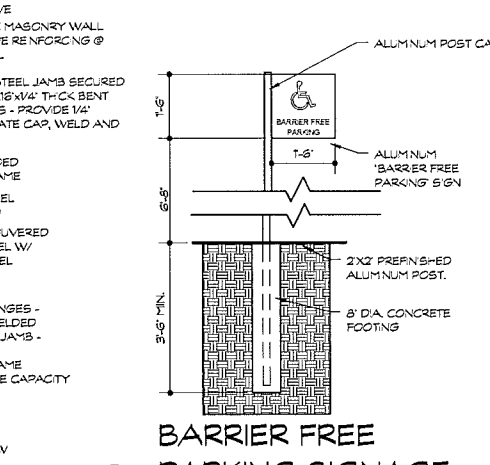
PIPE BOLLARD SCALE 1/2" = 1'-0"



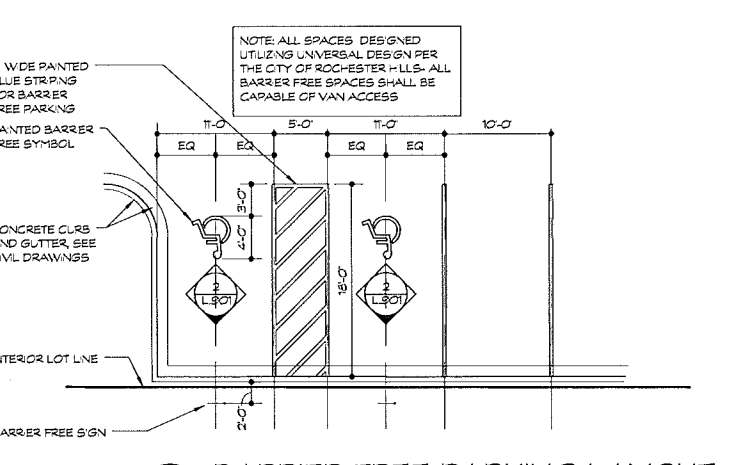
FENCE SECTION SCALE 1/2" = 1'-0"



GATE JAMB SECTION SCALE 3" = 1'-0"



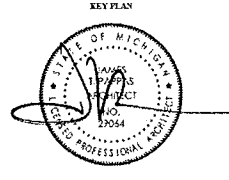
BARRIER FREE PARKING SIGNAGE SCALE 1/2" = 1'-0"



BARRIER FREE PARKING LAYOUT SCALE 1/8" = 1'-0"

American House SENIOR LIVING COMMUNITIES CITY STATE

Table with 2 columns: Date and Description. Includes entries for 08.14.13 SITE PLAN REVIEW, 07.24.13 PROGRESS SET, and 06.28.13 SITE PLAN REVIEW.



FSP PROJECT NO. AMH11.008 DRAWING TITLE: SITE DETAILS DRAWING NUMBER: L.901

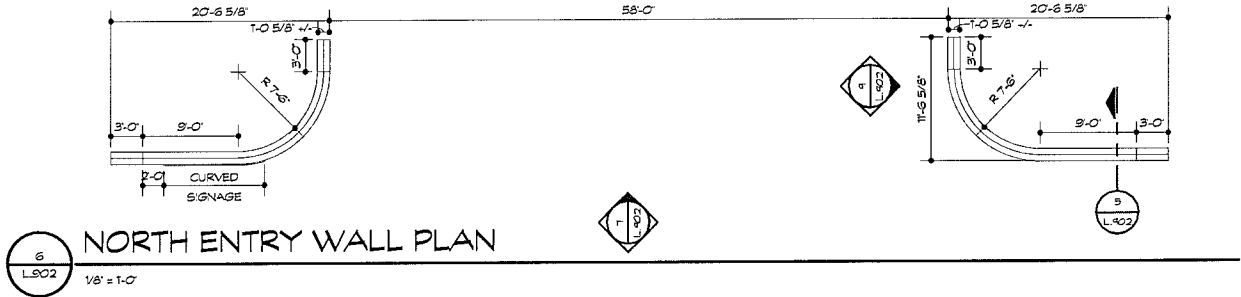
CITY FILE #99-007.4

L.901

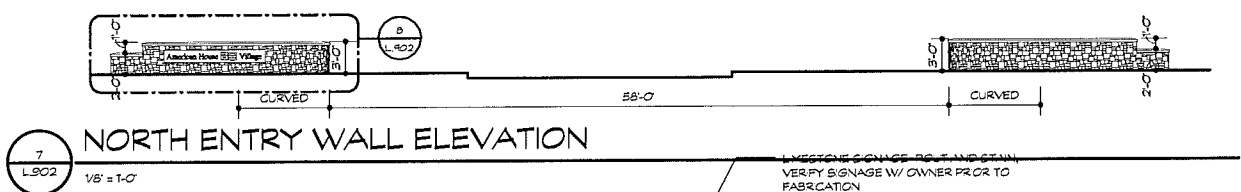
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ARCHITECTS AND PLANNERS
3858 NORTHWESTERN HWY., SUITE 100
FARMINGTON HILLS, MICHIGAN, 48334
PHONE 248.932.8590 FAX 248.932.8501

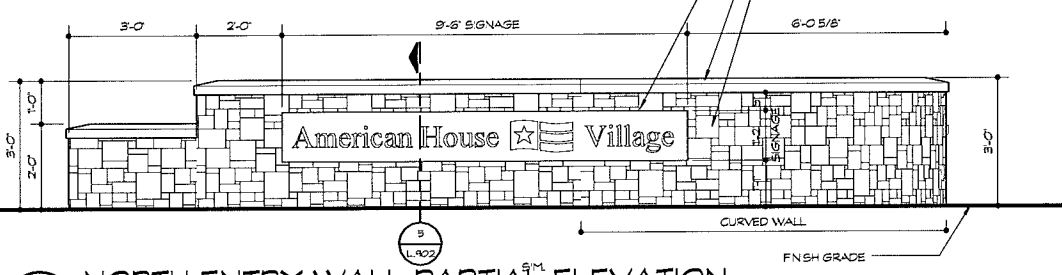
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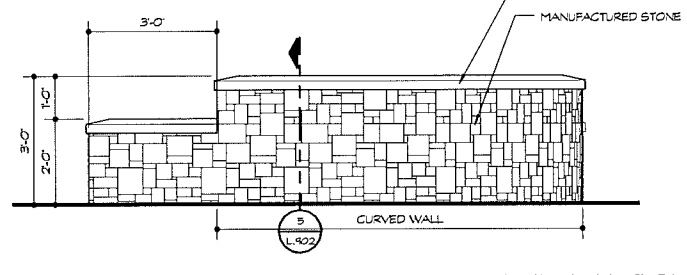
6 NORTH ENTRY WALL PLAN
1/8" = 1'-0"



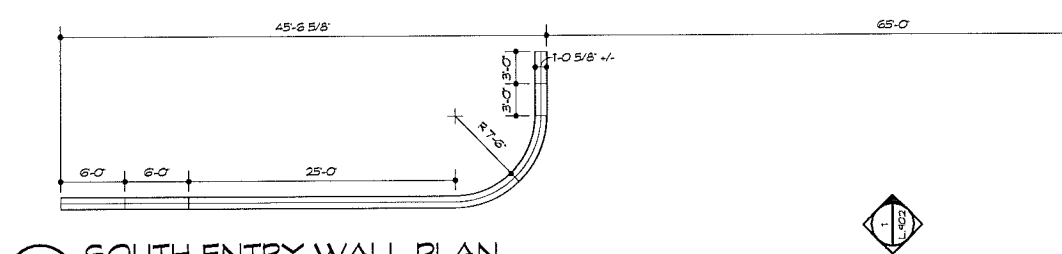
7 NORTH ENTRY WALL ELEVATION
1/8" = 1'-0"



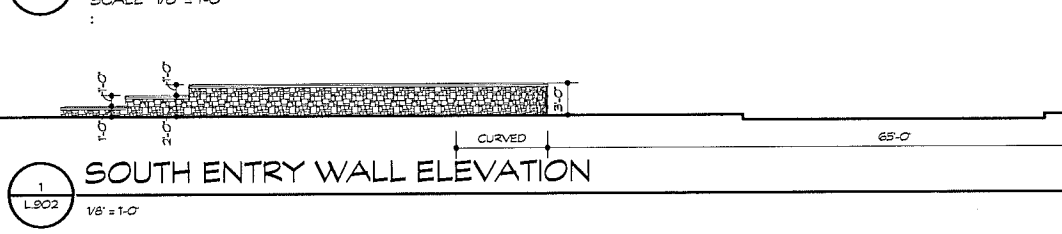
8 NORTH ENTRY WALL PARTIAL ELEVATION
1/2" = 1'-0"



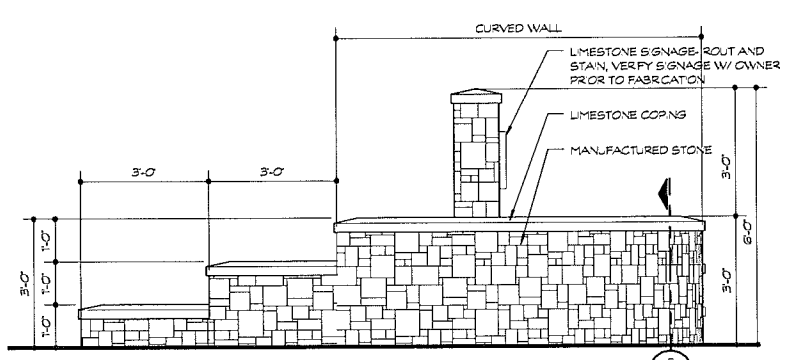
9 NORTH ENTRY WALL SIDE ELEVATION
1/2" = 1'-0"



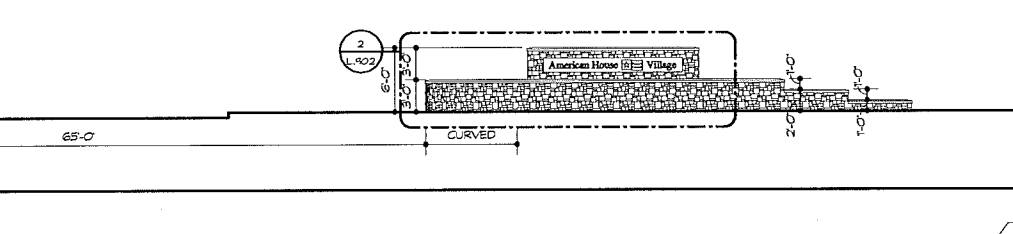
4 SOUTH ENTRY WALL PLAN
SCALE 1/8" = 1'-0"



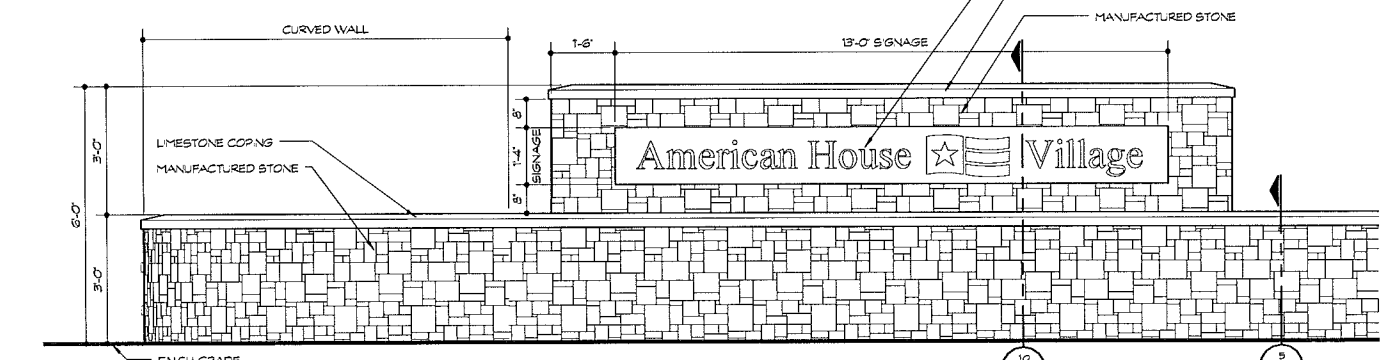
1 SOUTH ENTRY WALL ELEVATION
1/8" = 1'-0"



3 SOUTH ENTRY WALL SIDE ELEVATION
1/2" = 1'-0"

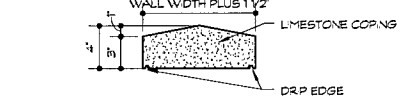


2 SOUTH ENTRY WALL PARTIAL ELEVATION
1/2" = 1'-0"

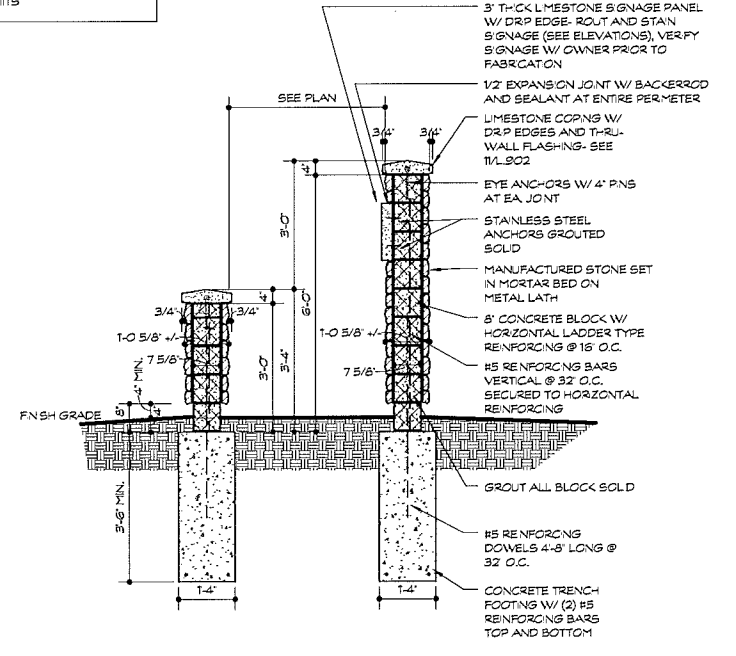


5 SOUTH ENTRY WALL PARTIAL ELEVATION
1/2" = 1'-0"

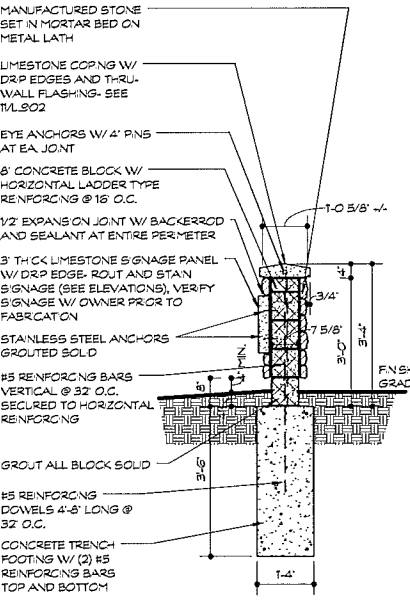
NOTE:
ALL WALLS AND SIGNAGE TO BE REVIEWED
AND APPROVED BY THE BUILDING
DEPARTMENT PRIOR TO CONSTRUCTION.
CONTRACTOR IS RESPONSIBLE TO OBTAIN
ALL REQUIRED PERMITS



11 COPING SECTION
1 1/2" = 1'-0"



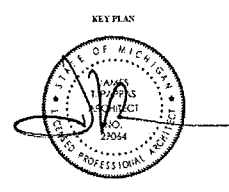
10 SCREEN WALL
1/2" = 1'-0"



5 SCREEN WALL
1/2" = 1'-0"

American House
SENIOR LIVING COMMUNITIES
STATE CITY

DATE	ISSUE
08.14.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
08.28.13	SITE PLAN REVIEW
06.10.13	OWNER REVIEW
DATE	ISSUE

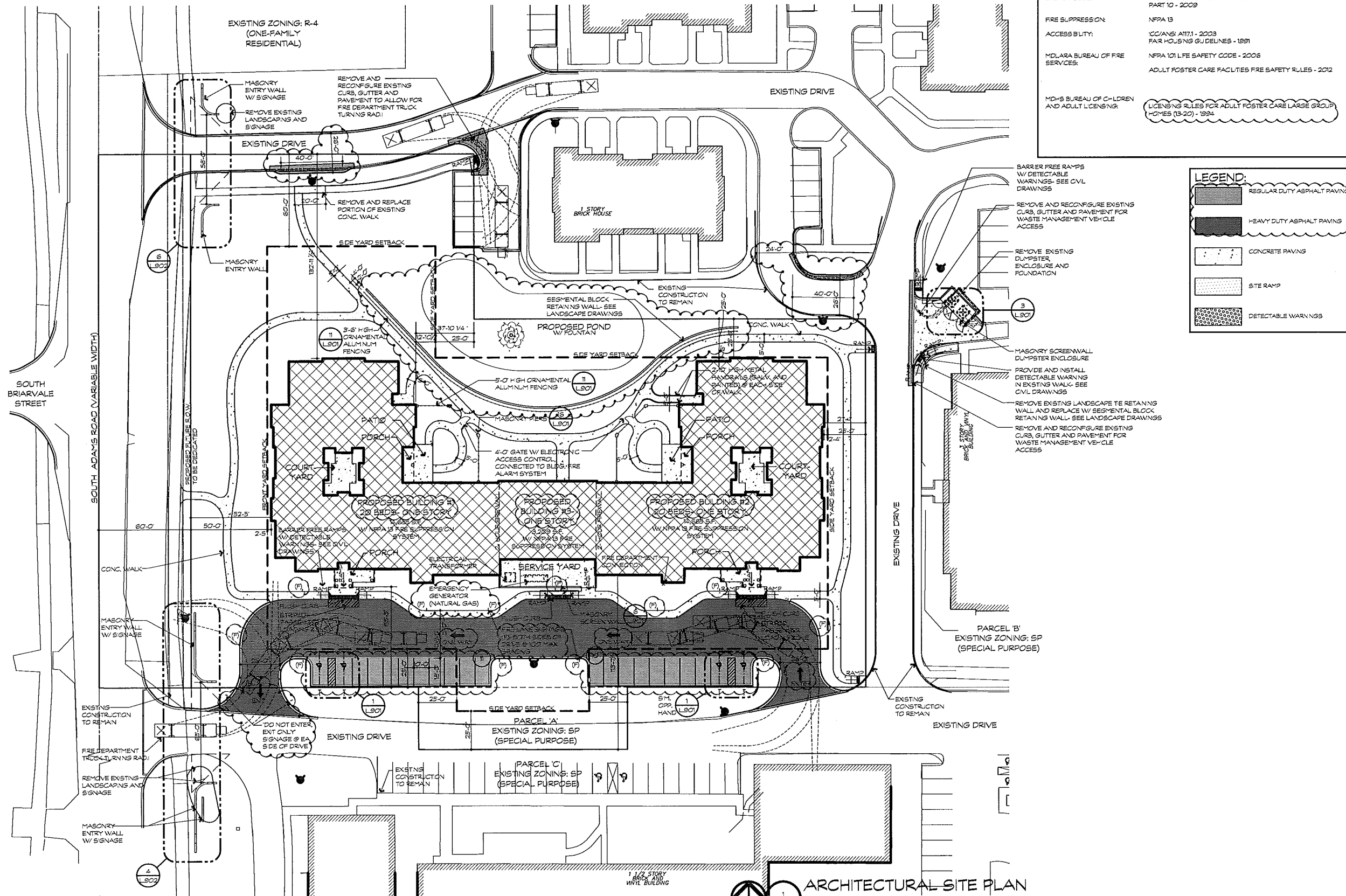


FSP PROJECT NO.
AMH12.008
DRAWING TITLE
SITE DETAILS
DRAWING NUMBER

CITY FILE #99-007.4

L.902

CODE DATA	
BUILDING CODE:	MICHIGAN RESIDENTIAL CODE - 2009
USE GROUP:	R
NFPA 220 CONSTRUCTION TYPE:	VII
PLUMBING CODE:	MICHIGAN PLUMBING CODE - 2009
MECHANICAL CODE:	MICHIGAN MECHANICAL CODE - 2009
ELECTRICAL CODE:	STATE OF MICHIGAN CODE 5 - NATIONAL ELECTRICAL CODE 2011 W/ PART 8 AMENDMENTS
ENERGY CODE:	MICHIGAN UNIFORM ENERGY CODE PART 10 - 2009
FIRE SUPPRESSION:	NFPA 13
ACCESSIBILITY:	CCJANS 11171 - 2003 FAR HOUSING GUIDELINES - 1991
MICHIGAN BUREAU OF FIRE SERVICES:	NFPA 101 LIFE SAFETY CODE - 2006 ADULT FOSTER CARE FACILITIES FIRE SAFETY RULES - 2012
MICHIGAN BUREAU OF CHILDREN AND ADULT LICENSING:	LICENSING RULES FOR ADULT FOSTER CARE LARGE GROUP HOMES (13-20) - 1994



LEGEND:	
[Pattern]	REGULAR DUTY ASPHALT PAVING
[Pattern]	HEAVY DUTY ASPHALT PAVING
[Pattern]	CONCRETE PAVING
[Pattern]	SITE RAMP
[Pattern]	DETECTABLE WARNING

American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

08.14.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
06.29.13	SITE PLAN REVIEW
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
04.22.13	FIRE MARSHAL REVIEW
DATE	ISSUE

KEY PLAN

FSP PROJECT NO.

DRAWING TITLE

ARCHITECTURAL SITE PLAN

DRAWING NUMBER

ARCHITECTURAL SITE PLAN
SCALE: 1/8"=1'-0"
NORTH

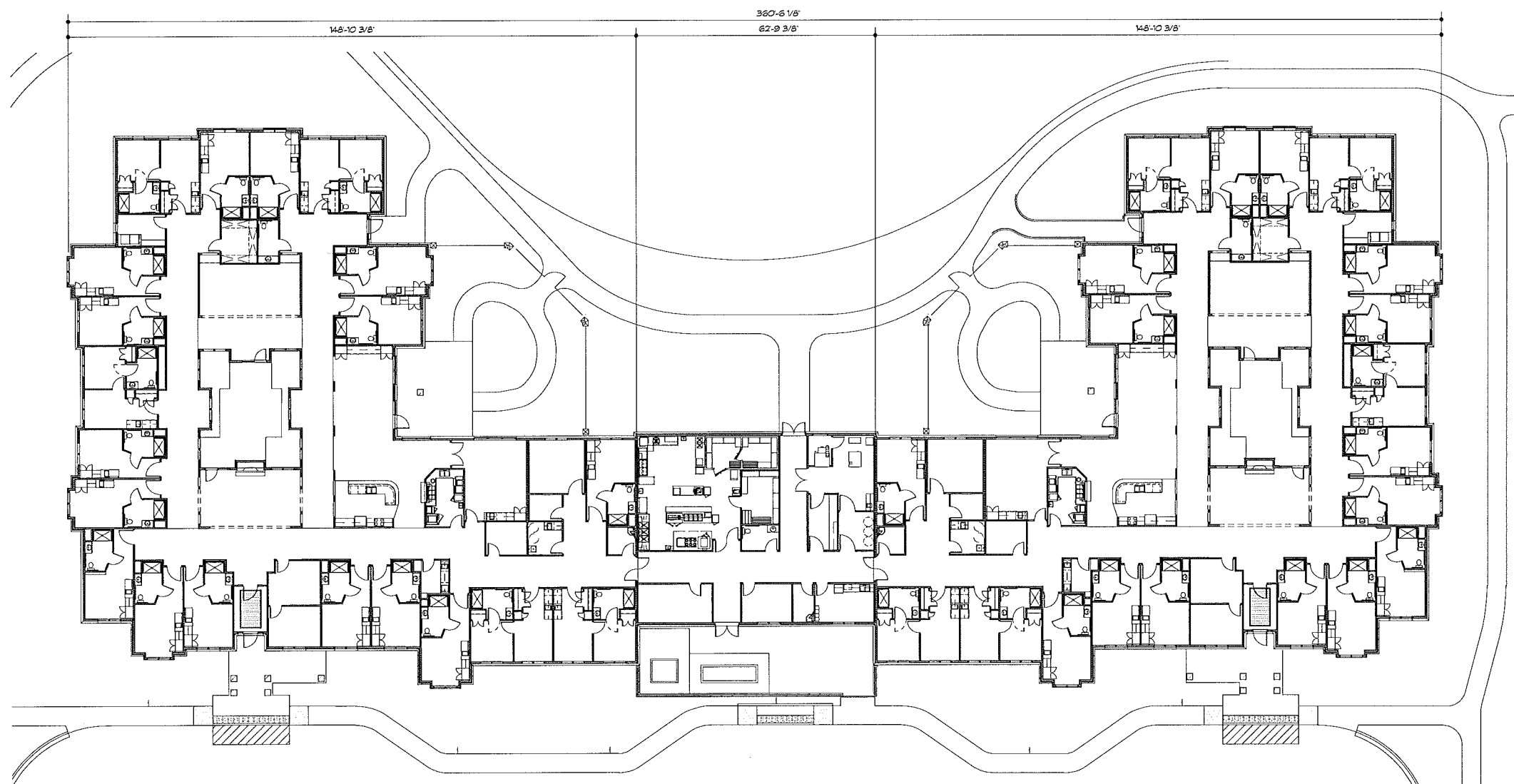
CITY FILE #99-007.4
NOT TO BE USED AS CONSTRUCTION DRAWINGS

A.S.102

NOT TO BE USED FOR CONSTRUCTION DRAWINGS

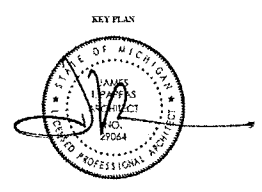
FUSCO, SHAFER & PAPPAS, INC. ARCHITECTS AND PLANNERS
3508 NORTHWESTERN HWY., SUITE 100 FARMINGTON HILLS, MICHIGAN, 48334
PHONE 248.932.8200 FAX 248.932.8291

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American House SENIOR LIVING COMMUNITIES ROCHESTER HILLS MICHIGAN

DATE	ISSUE
08.14.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
06.28.13	SITE PLAN REVIEW
06.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW



FSP PROJECT NO. AMH12.008
DRAWING TITLE
FLOOR PLAN
DRAWING NUMBER

FLOOR PLAN
1 A101
1/8" = 1'-0"

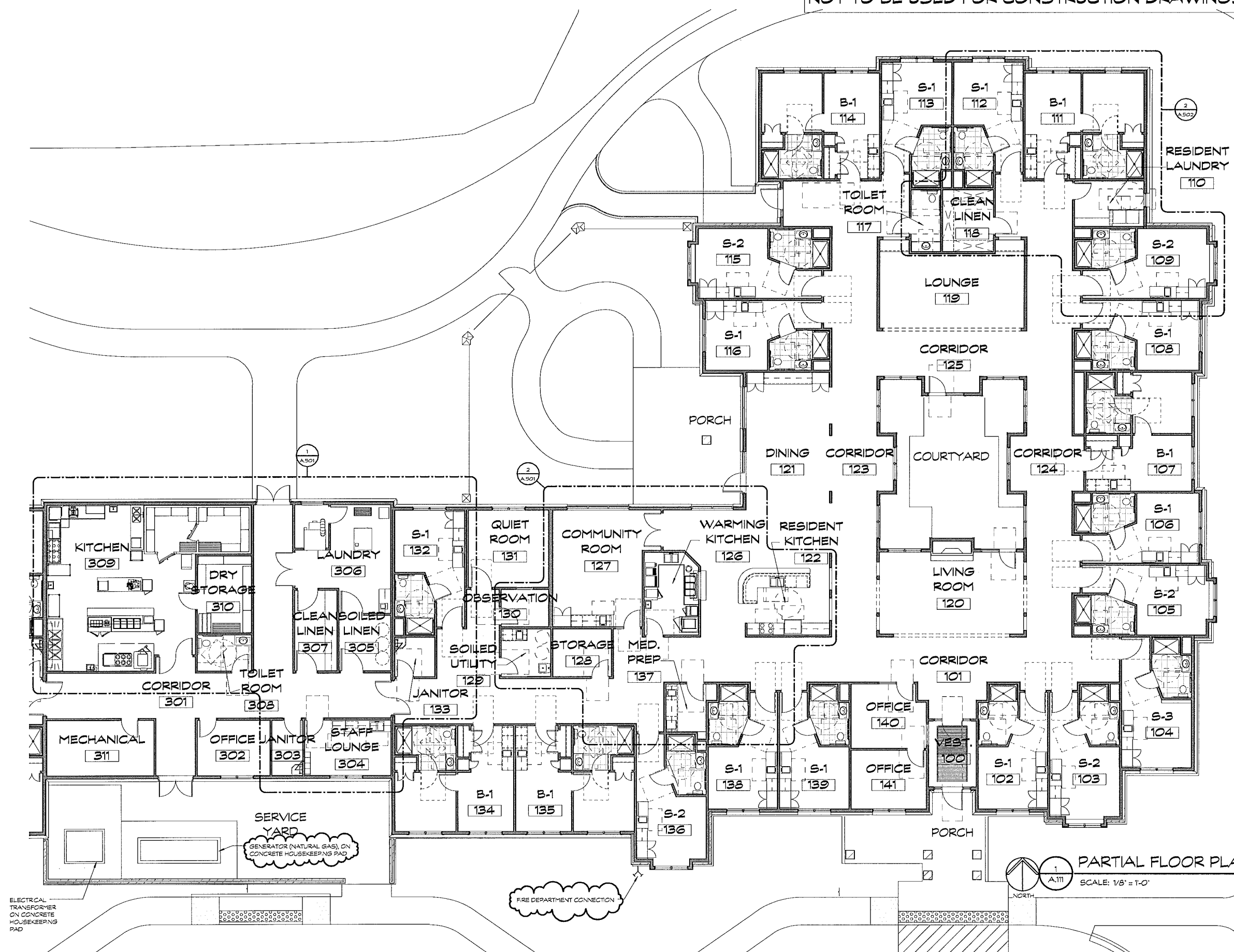
CITY FILE #99-007.4 A.101

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9999 NORTHWESTERN HWY, SUITE 100
FARMINGTON HILLS, MICHIGAN, 48334
PHONE 248.922.8500 FAX 248.922.4911

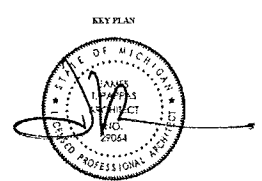
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RESIDENT LAUNDRY 110

American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

08.14.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
04.28.13	SITE PLAN REVIEW
08.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW
DATE	ISSUE



PARTIAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

FSP PROJECT NO. AMH12.009
DRAWING TITLE
PARTIAL FLOOR PLAN
DRAWING NUMBER

CITY FILE #99-007.4

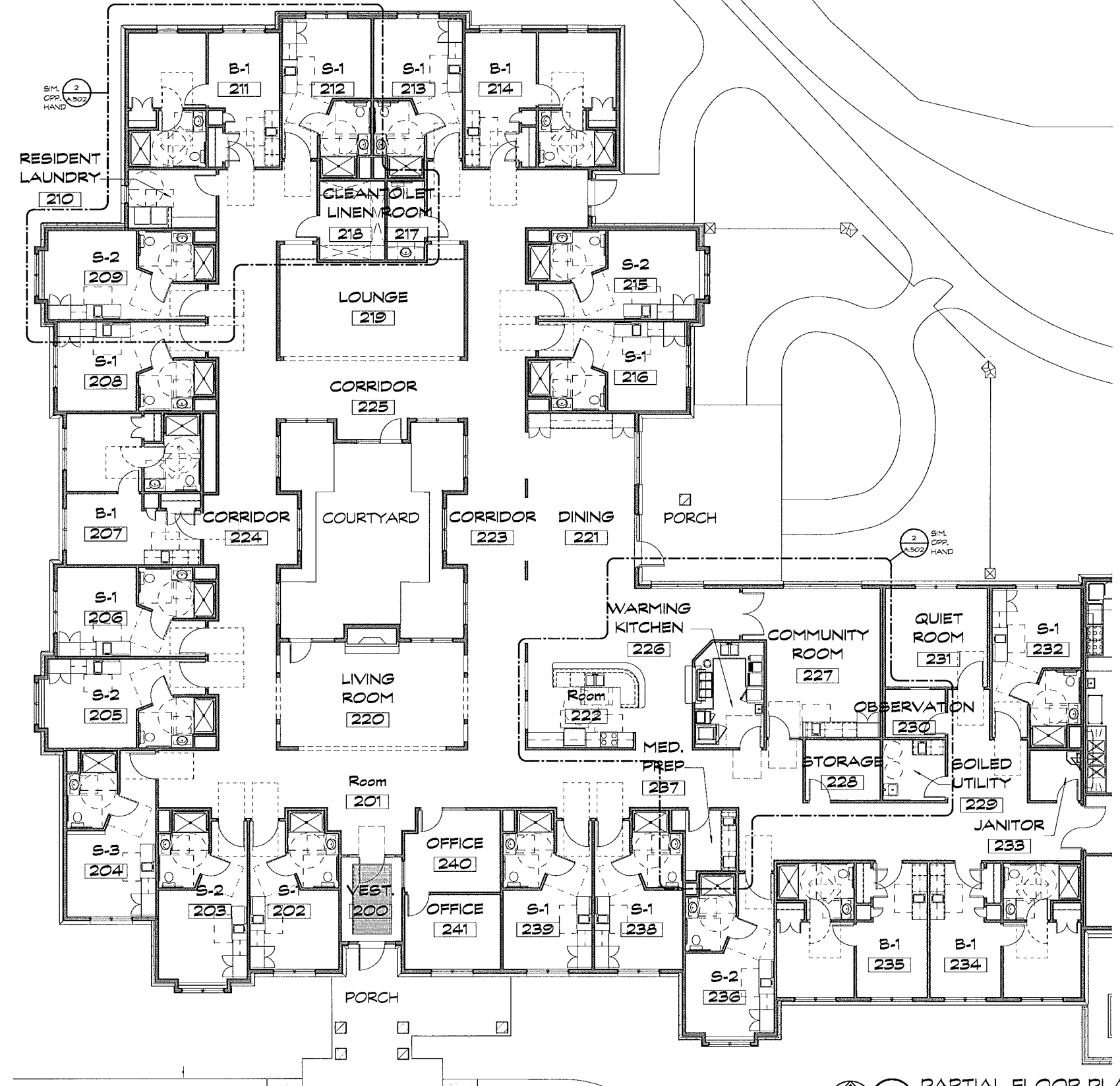
A.111

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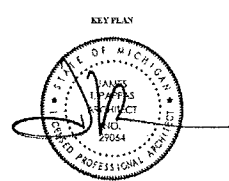
9090 NORTHWESTERN HWY., SUITE 100
FARMINGTON HILLS, MICHIGAN, 48334
PHONE 248.921.8500 FAX 248.921.8501

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American House
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MICHIGAN
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DATE	ISSUE
08.14.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
05.28.13	SITE PLAN REVIEW
08.10.13	OWNER REVIEW
05.09.13	OWNER REVIEW

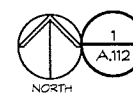


FSP PROJECT NO.
AMH12.008

DRAWING TITLE

PARTIAL FLOOR PLAN

DRAWING NUMBER



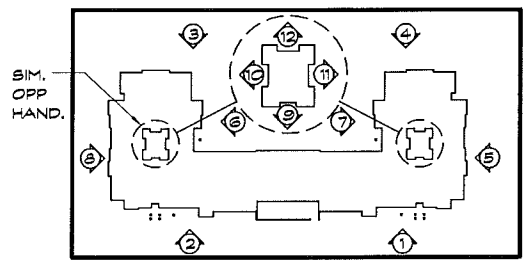
PARTIAL FLOOR PLAN

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

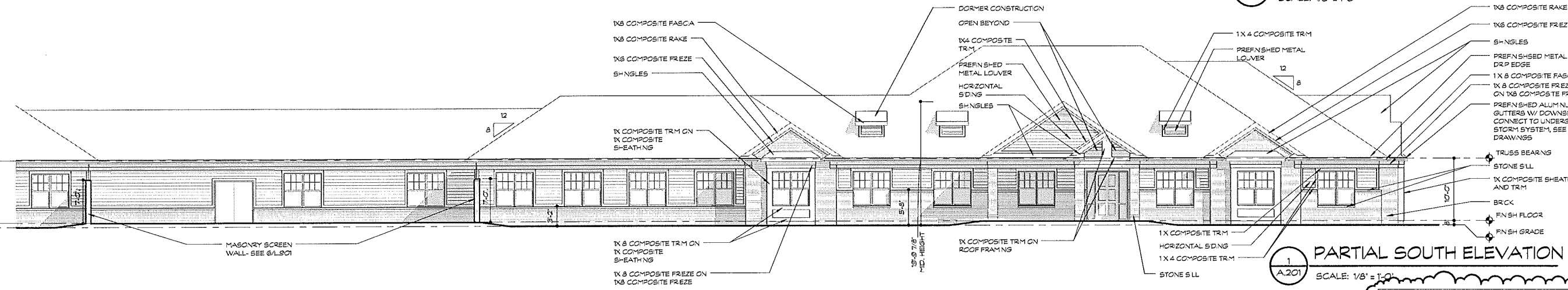
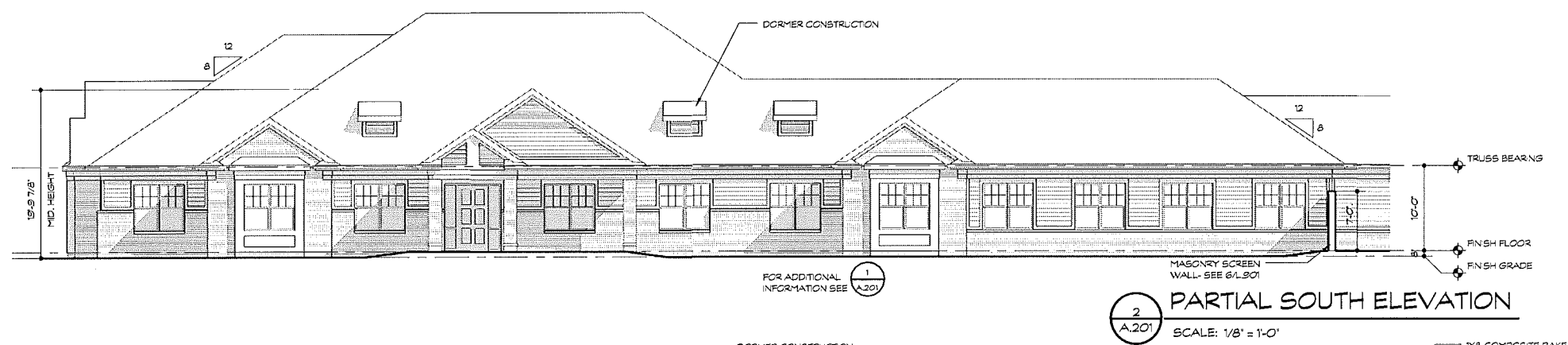
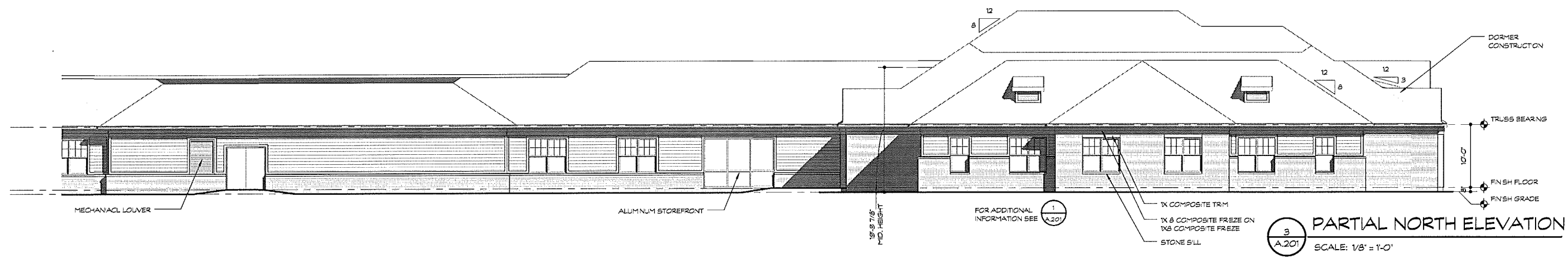
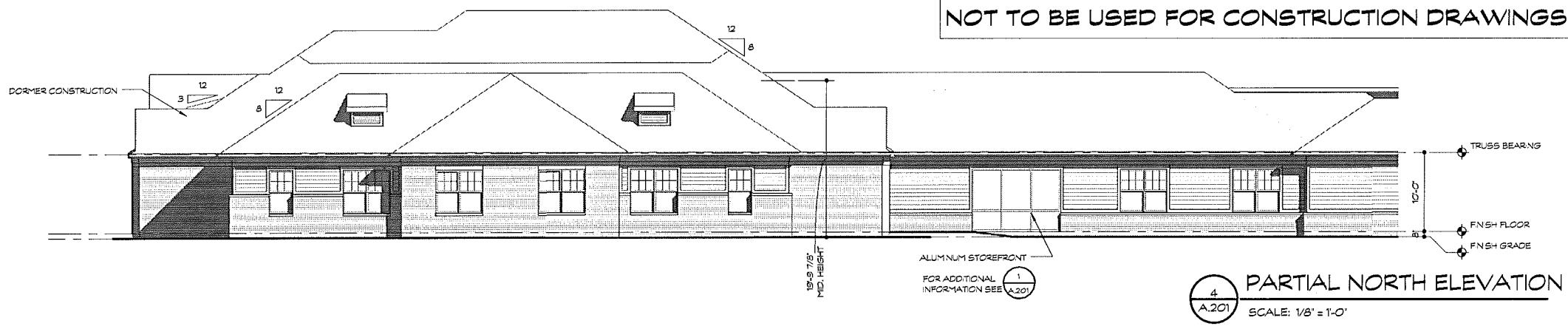
CITY FILE #99-007.4

A.112

NOT TO BE USED FOR CONSTRUCTION DRAWINGS

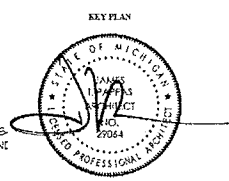


ELEVATION KEY PLAN
SCALE: NONE
NORTH



American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

DATE	ISSUE
08.14.13	SITE PLAN REVIEW
07.24.13	PROGRESS SET
06.28.13	SITE PLAN REVIEW
DATE	ISSUE



FSP PROJECT NO. AMH12.009

DRAWING TITLE
ELEVATIONS

DRAWING NUMBER

CITY FILE #99-007.4

A.201

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4 FOR ADDITIONAL INFORMATION SEE
A.202

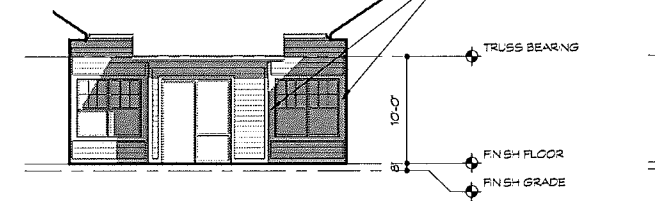


INTERIOR COURTYARD- WEST ELEVATION

12 A.202

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

4 FOR ADDITIONAL INFORMATION SEE
A.202

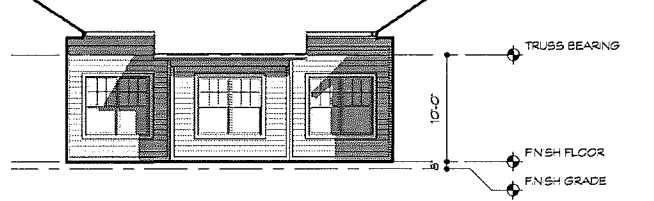


INTERIOR COURTYARD- SOUTH ELEVATION

11 A.202

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

4 FOR ADDITIONAL INFORMATION SEE
A.202

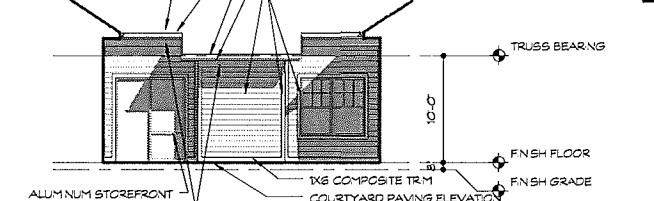


INTERIOR COURTYARD- EAST ELEVATION

1 A.202

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

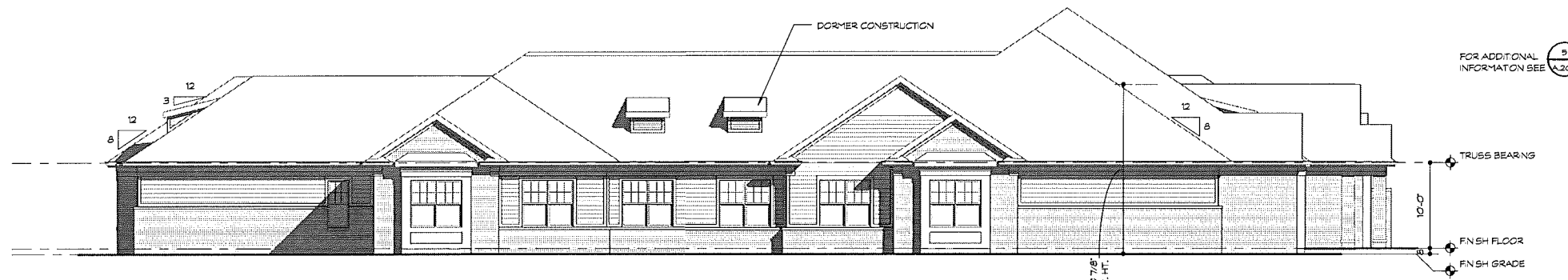
5 FOR ADDITIONAL INFORMATION SEE
A.202



INTERIOR COURTYARD- NORTH ELEVATION

9 A.202

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



WEST ELEVATION

8 A.202

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

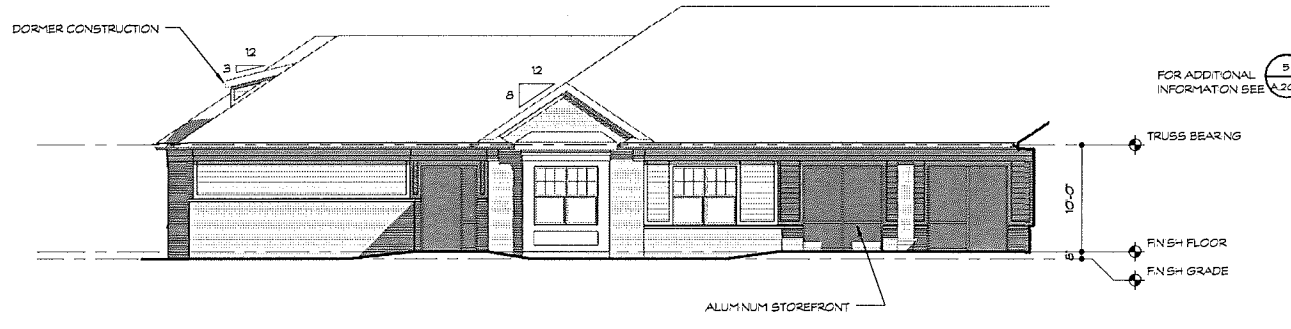
FOR ADDITIONAL INFORMATION SEE
A.202



EAST COURTYARD ELEVATION

2 A.202

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

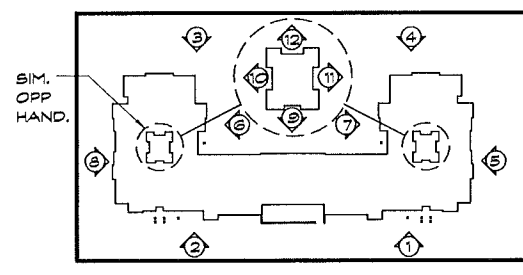


WEST COURTYARD ELEVATION

6 A.202

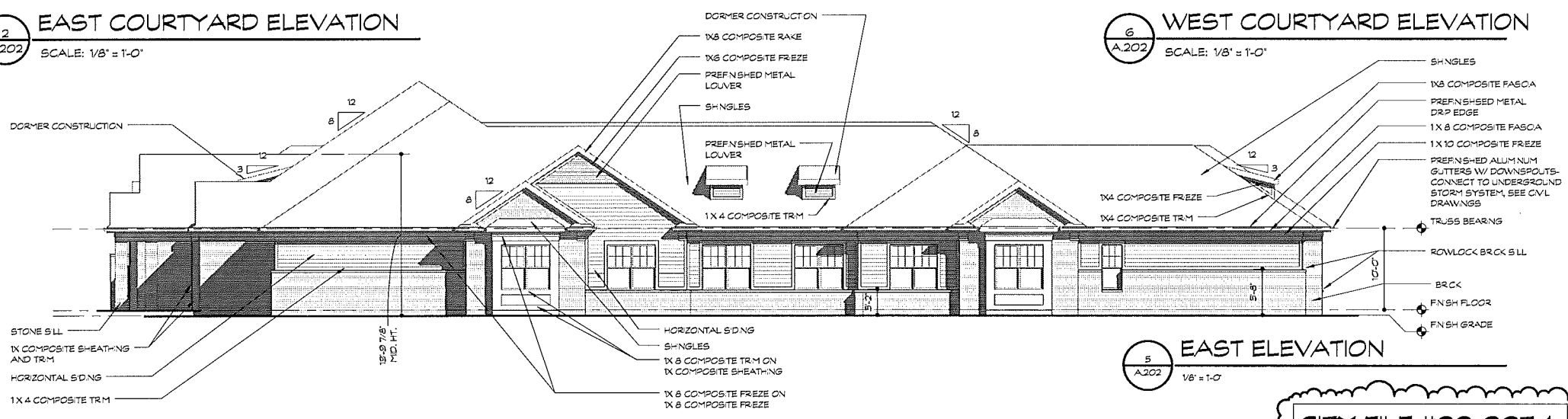
SCALE: 1/8" = 1'-0"

FOR ADDITIONAL INFORMATION SEE
A.202



ELEVATION KEY PLAN

SCALE: NONE
NORTH



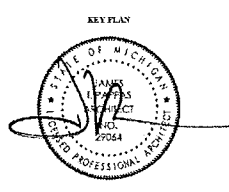
EAST ELEVATION

5 A.202

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

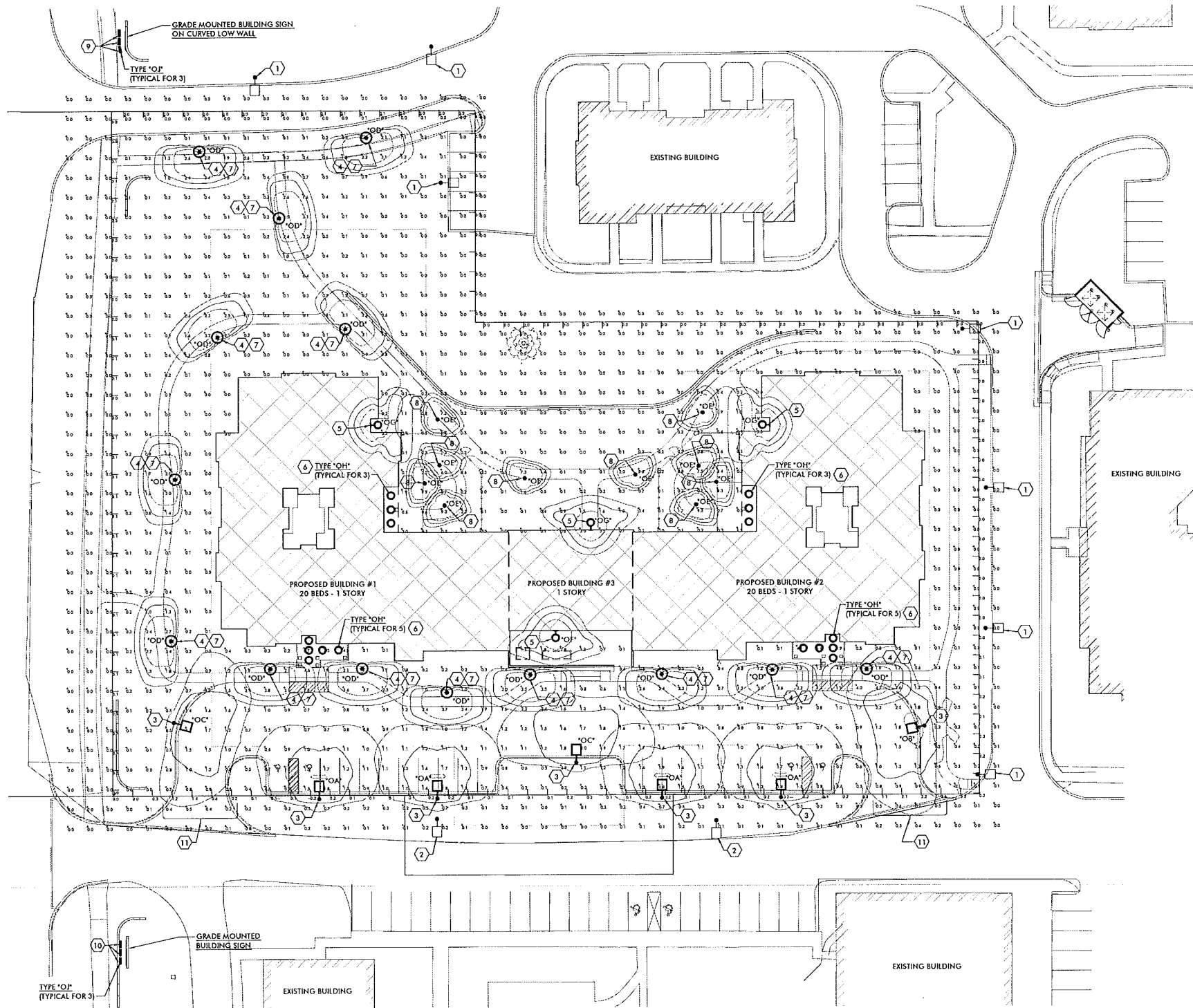
American House
SENIOR LIVING COMMUNITIES
MICHIGAN
ROCHESTER HILLS

DATE	ISSUE	DESCRIPTION
08.14.13	001	SITE PLAN REVIEW
07.24.13	002	PROGRESS SET
06.28.13	003	SITE PLAN REVIEW



KEY PLAN
FSP PROJECT NO.
AMH12.008
DRAWING TITLE
ELEVATIONS
DRAWING NUMBER

CITY FILE #99-007.4
A.202



NORTH
1 SITE PLAN - POINT-BY-POINT LIGHTING PHOTOMETRY
 E.P.101 SCALE: 1" = 30'-0"

SITE PLAN GENERAL NOTES:

- REFER TO ARCHITECTURAL SITE PLAN FOR ADDITIONAL INFORMATION REGARDING PROPOSED WALKWAYS, PATIOS AND OTHER RENOVATION WORK ASSOCIATED WITH THE PROJECT.
- REFER TO SHEETS E.901 FOR POLE BASE DETAILS AND LIGHTING FIXTURE CUT SHEETS.

KEY NOTES:

- EXISTING POLE MOUNTED SITE LIGHTING FIXTURE TO REMAIN. THE CONTRIBUTION FROM THIS FIXTURE IS NOT REFLECTED ON THE PHOTOMETRIC CALCULATIONS INDICATED THIS SHEET.
- EXISTING POLE MOUNTED, "COBRA HEAD" STYLE SITE LIGHTING FIXTURE TO REMAIN. THE CONTRIBUTION FROM THIS FIXTURE IS NOT REFLECTED ON THE PHOTOMETRIC CALCULATIONS INDICATED THIS SHEET.
- REFER TO BASE DETAIL "A" ON SHEET E.901.
- REFER TO BASE DETAIL "B" ON SHEET E.901.
- WALL MOUNTED FULL CUTOFF TYPE LIGHT FIXTURE MOUNTED AT 8'-0" ABOVE EXTERIOR DOOR.
- DOWN LIGHT FIXTURE MOUNTED IN ENTRY CANOPY.
- POST TOP MOUNTED PEDESTRIAN SCALE FULL CUTOFF TYPE LIGHT FIXTURE, MOUNTED AT 8'-0".
- LED TYPE BOLLARD LIGHT FIXTURE, 42" TALL, MOUNTED IN LANDSCAPED AREA ALONG WALKING PATH.
- GRADE MOUNTED, FULLY ADJUSTABLE LINEAR LED FLOOD LIGHT FIXTURE TO ILLUMINATE GRADE MOUNTED BUILDING SIGN.
- SURFACE MOUNTED, FULLY ADJUSTABLE LINEAR LED FLOOD LIGHT FIXTURE, MOUNTED AT 2'-0" ABOVE FINISHED GRADE ON BACK SIDE OF NEW MASONRY LOW HEIGHT WALL, TO ILLUMINATE GRADE MOUNTED BUILDING SIGN.
- ILLUMINATION LEVELS INDICATED AT LOT / PROPERTY LINE ON SOUTH SIDE OF THE PROJECT PROPERTY BOUNDARY EXCEED THE MAXIMUM 0.5 FOOT-CANDLE (MEASURED ON THE VERTICAL PLANE AT AN ELEVATION OF 5'-0" ABOVE FINISH GRADE) ALLOWED BY THE CITY ZONING ORDINANCE ARTICLE 10, CHAPTER 2 "EXTERIOR SITE LIGHTING" DUE TO THE FOLLOWING REASONS: a) THE LOT / PROPERTY LINE BI-SECTS THE EAST AND WEST ENTRY DRIVES TO THE BUILDING, WHICH IS REQUIRED TO BE ILLUMINATED IN ACCORDANCE WITH THE EXTERIOR LIGHTING ORDINANCE AS WELL AS PER THE RECOMMENDATIONS OF THE IESNA (ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA); b) THE "PROPERTY LINE" WHERE THE OFFENDING ILLUMINATION LEVELS OCCUR IS NOT TECHNICALLY A PROPERTY LINE, BUT RATHER AN INNER LOT LINE, WITH THE ADJOINING PROPERTY OWNED BY THE SAME DEVELOPMENT.

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
●	4	OA	SINGLE	N.A.	0.850	DSX1 LED 30C 530 40K TFTM MVOLT HS
●	1	OB	SINGLE	N.A.	0.850	DSX1 LED 30C 530 40K T3M MVOLT
●	2	OC	SINGLE	N.A.	0.850	DSX1 LED 30C 530 40K T3M MVOLT HS
●	14	OD	SINGLE	N.A.	0.850	ARE-EDR-5MB-04-D-UL-350-43K (350mA)
●	10	OE	SINGLE	N.A.	0.850	PWY-EDG-3M-02-D-UL-350-57K (350mA)
○	2	OF	SINGLE	N.A.	0.850	WST LED 1 10A/700/40K SR3 MVOLT
○	2	OG	SINGLE	N.A.	0.850	WST LED 1 10A/700/40K SR4 MVOLT
○	16	OH	SINGLE	568	0.850	CAL05DL40KCLW
○	6	OJ	SINGLE	N.A.	0.850	WSUB-603-3-30-30K

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Entire Site Planar	ILLUMINANCE	Fc	0.60	9.9	0.0	N.A.	N.A.
North Building Sign	ILLUMINANCE	Fc	14.79	20.1	7.4	2.00	2.72
Property - Inner Lot Line	ILLUMINANCE	Fc	0.12	2.2	0.0	N.A.	N.A.
South Building Sign	ILLUMINANCE	Fc	5.62	8.1	3.0	1.87	2.70
Parking and Drives	ILLUMINANCE	Fc	1.38	4.2	0.5	2.76	8.40

LumNo	Label	X	Y	Z	Orient	TH
77	OA	5120.7	4974.6	15	90	0
78	OA	5180.7	4974.6	15	90	0
79	OA	5294.8	4974.6	15	90	0
80	OA	5354.8	4974.6	15	90	0
81	OB	5426.7	5011	15	191.746	0
84	OC	5251	4993.3	15	90	0
85	OC	5048.4	5014	15	343.652	0
87	OD	5045.9	5055.6	8	180	0
88	OD	5048	5137.4	8	180	0
91	OD	5101	5269.9	8	9.684	0
92	OD	5069.6	5209.4	8	122.581	0
93	OD	5060.6	5303.7	8	270.392	0
94	OD	5145.5	5310.4	8	279.985	0
96	OE	5181.4	5187.5	3.5	43.544	0
98	OE	5225.1	5137.5	3.5	73.85	0
100	OE	5281.5	5139.1	3.5	110.349	0
101	OE	5315.9	5170.4	3.5	141.967	0
104	OE	5184.7	5123.8	3.5	287.241	0
105	OE	5182.3	5144.2	3.5	69.274	0
106	OH	5157.7	5128.8	8	0	0
107	OH	5157.7	5114.8	8	0	0
108	OH	5157.7	5121.8	8	0	0
109	OE	5313.7	5143.4	3.5	110.433	0
110	OE	5312.5	5123.8	3.5	252.759	0
112	OH	5339.2	5128.8	8	0	0
113	OH	5339.2	5114.8	8	0	0
114	OH	5339.2	5121.8	8	0	0
115	OG	5147.9	5164.6	8	0	0
116	OG	5349.3	5164	8	180	0
117	OF	5258.6	5111.5	8	90	0
118	OF	5240.7	5059.7	8	270	0
119	OH	5115.7	5055.6	8	0	0
120	OH	5115.7	5050.6	8	0	0
121	OH	5115.7	5045.6	8	0	0
122	OH	5122.7	5050.6	8	0	0
123	OH	5130.7	5050.6	8	0	0
124	OH	5381.6	5055.6	8	180	0
125	OH	5381.6	5050.6	8	180	0
126	OH	5381.6	5045.6	8	180	0
127	OH	5374.6	5050.6	8	180	0
128	OH	5366.6	5050.6	8	180	0
129	OJ	5019.4	4902.3	2	0	128.884
130	OJ	5019.4	4893.6	2	0	128.884
131	OJ	5019.4	4898	2	0	128.884
132	OJ	5020.2	5363.9	0.5	0	114.905
133	OJ	5020.2	5359.6	0.5	0	114.905
134	OJ	5020.2	5355.9	0.5	10.125	114.563
135	OD	5185.7	5029	8	270	0
138	OD	5096.1	5041.2	8	270	0
139	OD	5142.8	5041.2	8	270	0
141	OD	5350.7	5039.8	8	270	0
142	OD	5398.5	5040	8	270	0
143	OD	5227.7	5037.8	8	270	0
144	OD	5294.7	5037.8	8	270	0
145	OD	5134.7	5213.4	8	44.116	0
146	OE	5174.8	5135.1	3.5	178.811	0
147	OE	5322.6	5135.2	3.5	358.203	0

NOTE:
 ALL SITE LIGHTING POLES PROPOSED FOR INSTALLATION ON THIS PROJECT ARE MOUNTED AT A MAXIMUM ELEVATION OF 15'-0" ABOVE FINISHED GRADE, ON A CONCRETE BASE. NOTE THAT SELECT FIXTURES ARE MOUNTED AT A LOWER HEIGHT AS INDICATED IN THE ABOVE SCHEDULE. REFER TO BASE DETAILS ON SHEET E.901 FOR ADDITIONAL INFORMATION.

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CONSULTING ENGINEERS
TAC ASSOCIATES, LLC
 4321 East Canton Road
 Okemos, MI 48864
 Ph: (517) 254-4789 Fax: (517) 254-4888
 http://www.tac-assoc.com
 TAC Project No. 13-013

American House
 SENIOR LIVING COMMUNITIES
 ROCHESTER HILLS, MICHIGAN

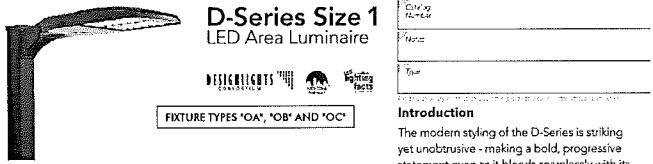
08.14.13 Site Plan Approval
 06.28.13 Site Plan Approval
 DATE ISSUE

SEAL
 THOMAS G. CROW
 PROFESSIONAL ENGINEER
 No. 56658

ESP PROJECT NO.
 DRAWING TITLE
 Site Plan - Point-by-Point
 Lighting Photometry

DRAWING NUMBER
E.P.101

CITY FILE #99-007 4
 NOT TO BE USED AS CONSTRUCTION DRAWINGS



D-Series Size 1 LED Area Luminaire

Specifications

EPA: 1.2 ft²
 Length: 33"
 Width: 24"
 Height: 7-1/2"
 Weight (each): 27 lbs

EXAMPLE: DSX1 LED 60C 1000 40K T3M MVOLT SPA DDBX0

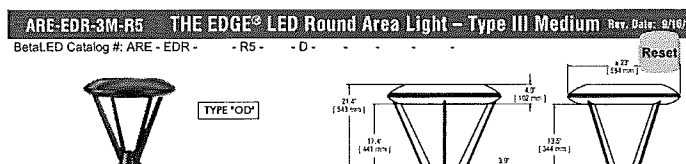
DSX1 LED	XX	VOLTS	WATTAGE	TEMPERATURE	TYPE	DESCRIPTION	SHIPPED INCLUDED	SHIPPED INSTALLED	SHIPPED INSTALLED	DSX1 LED	DSX1 LED
DSX1 LED	XX	120V	100W	4000K	T3M	1000lm	DSX1 LED	DSX1 LED	DSX1 LED	DSX1 LED	DSX1 LED

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100-400W metal halide in pedestrian and area lighting applications with typical energy savings of 45% and expected service life of over 100,000 hours.

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ARE-EDR-3M-R5 THE EDGE LED Round Area Light - Type III Medium

Specifications

Height: 7-1/4"
 Width: 16-7/8"
 Depth: 9-1/2"
 Weight: 17 lbs

LED PERFORMANCE SPECS

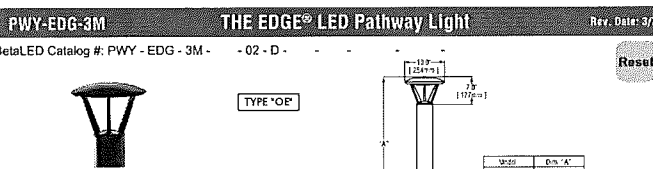
# of LEDs	Initial Lumen Output (lm)	Initial Beam Spread (°)	Initial Beam Diameter (ft)	Initial Beam Area (sq ft)	Initial Illuminance (fc)	Initial Illuminance (lx)	System Voltage (V)	Total Current (A)	Total Power (W)	Total Power (kW)	Total Power (BTU/hr)	Total Power (kWh/yr)	Beam Spread (°)	Beam Diameter (ft)	Beam Area (sq ft)	Illuminance (fc)	Illuminance (lx)
18	1,250	111°	1.50	1.11	111	111	120	0.11	13.2	1.32	1.32	11.6	111	1.11	1.11	111	111

Introduction

The classic Architectural Wall Sconce is now available with the latest in LED technology. The result is a long-life, maintenance-free product with typical energy savings of 75% compared to metal halide versions. The integral battery backup option provides emergency egress lighting, without the use of a back-box or remote gear, so installations maintain their aesthetic integrity.

The WST LED is ideal for replacing existing 50-175W metal halide wall-mounted products. The expected service life is 20+ years of nighttime use.

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PWY-EDG-3M THE EDGE LED Pathway Light

Specifications

Height: 7-1/4"
 Width: 16-7/8"
 Depth: 9-1/2"
 Weight: 17 lbs

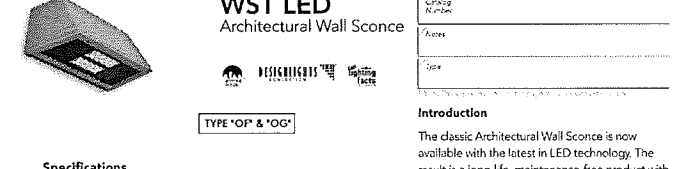
LED PERFORMANCE SPECS

# of LEDs	Initial Lumen Output (lm)	Initial Beam Spread (°)	Initial Beam Diameter (ft)	Initial Beam Area (sq ft)	Initial Illuminance (fc)	Initial Illuminance (lx)	System Voltage (V)	Total Current (A)	Total Power (W)	Total Power (kW)	Total Power (BTU/hr)	Total Power (kWh/yr)	Beam Spread (°)	Beam Diameter (ft)	Beam Area (sq ft)	Illuminance (fc)	Illuminance (lx)
18	1,250	111°	1.50	1.11	111	111	120	0.11	13.2	1.32	1.32	11.6	111	1.11	1.11	111	111

Emergency Battery Operation

The emergency battery backup (EBB) option is an integral part of the luminaire - no external battery required. The design provides reliable emergency operation after a power outage. The battery is fully charged when the luminaire is powered on. The battery is fully discharged when the luminaire is powered off. The battery is fully recharged when the luminaire is powered on again.

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WST LED Architectural Wall Sconce

Specifications

Height: 7-1/4"
 Width: 16-7/8"
 Depth: 9-1/2"
 Weight: 17 lbs

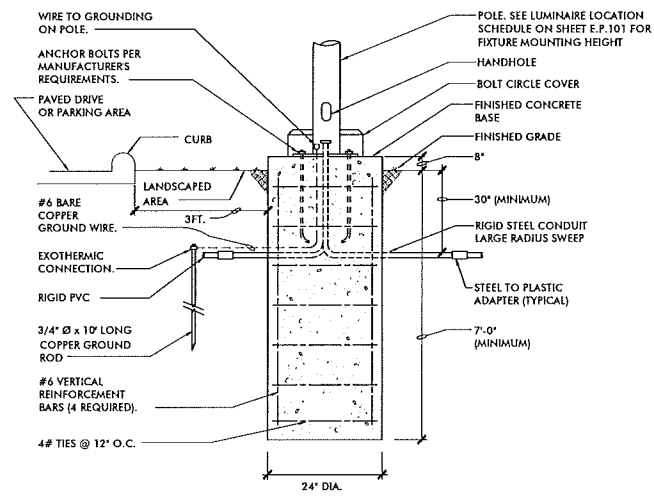
LED PERFORMANCE SPECS

# of LEDs	Initial Lumen Output (lm)	Initial Beam Spread (°)	Initial Beam Diameter (ft)	Initial Beam Area (sq ft)	Initial Illuminance (fc)	Initial Illuminance (lx)	System Voltage (V)	Total Current (A)	Total Power (W)	Total Power (kW)	Total Power (BTU/hr)	Total Power (kWh/yr)	Beam Spread (°)	Beam Diameter (ft)	Beam Area (sq ft)	Illuminance (fc)	Illuminance (lx)
18	1,250	111°	1.50	1.11	111	111	120	0.11	13.2	1.32	1.32	11.6	111	1.11	1.11	111	111

Emergency Battery Operation

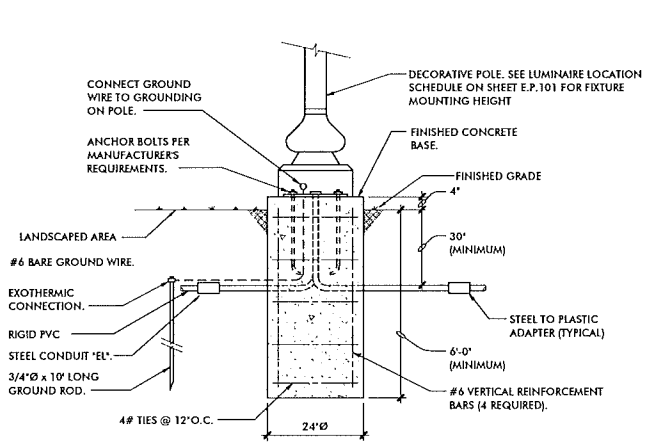
The emergency battery backup (EBB) option is an integral part of the luminaire - no external battery required. The design provides reliable emergency operation after a power outage. The battery is fully charged when the luminaire is powered on. The battery is fully discharged when the luminaire is powered off. The battery is fully recharged when the luminaire is powered on again.

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BASE DETAIL "A"
NO SCALE

BASE DETAIL TYPICAL FOR ALL POLE MOUNTED FIXTURES INSTALLED IN LANDSCAPED AREAS.



BASE DETAIL "B"
NO SCALE

BASE DETAIL TYPICAL FOR POLE MOUNTED FIXTURES INSTALLED IN LANDSCAPED AREAS, ALONG THE WALKING PATHS AND AT THE COTTAGE PARKING AREAS.

FUSCO, SHAEFFER & PAPPAS, INC.
 ARCHITECTS AND PLANNERS

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American House
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 ROCHESTER HILLS, MICHIGAN

08.14.13 Site Plan Approval
 06.28.13 Site Plan Approval
 DATE ISSUE

SEAL
 THOMAS G. CROW
 ENGINEER
 No. 05668

FSP PROJECT NO.
 DRAWING TITLE
 Site Lighting Fixture Cuts and Details

DRAWING NUMBER

CITY FILE #99-007.4
 NOT TO BE USED AS CONSTRUCTION DRAWINGS

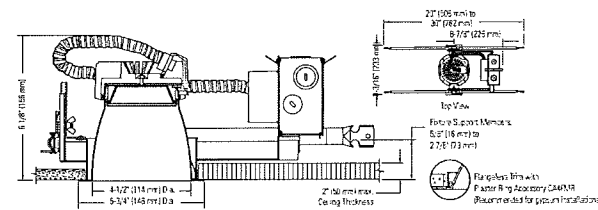
E.901

C4L05DL

Calculite 4 1/2" LED Downlight

Page 1 of 6

TYPE "OH"



Ordering Guide: Light Engines

Light Engine Series	Style	Color Temperature	Reflector Finish	Flange	Options
C4L05	DL (Downlight)	27K (3000K)	CL (Clear)	W (Painted White)	EM (Integral emergency test switch) ¹
		30K (3000K)	CCL (Comfort Clear)	P (Aspheric)	
		35K (4000K)	CCD (Comfort Clear Diffuse)	M (Matching Polished)	
		49K (4000K)	CCC (Champagne Bronze)	FT (Flush-mount flangeless) ²	

Example: C4L05DL35KCCCLWEM¹ *Necessary CA47MR recommended for gypsum applications. Reflector flange is 1/4".
¹See LED-EM for details and restrictions.

Ordering Guide: Frame-in Kits

Frame-in Kit Series	Installation Options	Input Voltage	Options
C4L05	N (New construction)	1 (120V)	Blank (Electronic low voltage dimming, 120V only)
	R (Remodeler)	2 (277V) ¹	EM (Emergency) Z10V (0-10V dimming)
C4L05	J (J-box mount retrofit)	1 (120V)	Blank (Electronic low voltage dimming)
	S (Screw-in base retrofit (120V only))	2 (277V) ¹	Z10V (0-10V dimming)

Example: C4L05N1EM

¹277V dimming applications require Z10V option.

Job Information Type:

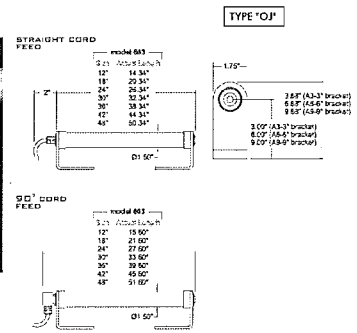
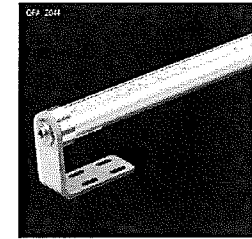
Job Name:

Est. No.:

Notes:

PHILIPS
LIGHTOLIER

Winline Submersible 603



Series: WSLB - Winline Submersible

Model: 603 - Model 603

Length: A - 12 inch

B - 18 inch

C - 24 inch

D - 30 inch

E - 36 inch

F - 42 inch

G - 48 inch

Beam: 30° - 30°

Spread: 150° - 150°

LED Code: 71K - ANSI-Binned 7100K

72K - ANSI-Binned 7200K

73K - ANSI-Binned 7300K

40K - ANSI-Binned 4000K

50K - Non-ANSI-Binned 5000K

Voltage: 120/24V - Non-Dimming 24 Volt AC

120/24V - Dimming 24 Volt AC

Mount: A3 - Adjustable 3" Mount Bracket

A6 - Adjustable 6" Mount Bracket

A8 - Adjustable 8" Mount Bracket

Finish: NSB - Metal Finish; Exterior Metal Finish is Alloy 316 Stainless Steel

Power Feed: 90° - Straight Cord Feed

90° - Gasket Feed

Special: STD - Standard

MOD - Modified

POWER AND DIMMING
 Winline 603 power consumption is 4.5W. The Winline 603 operates on 24VAC and can be dimmed with commonly available low voltage magnetic dimming equipment. A wide range of remote transformers are available in 120V and 277V primary (see pages 65-66). Note: NEC requires the primary side of the transformer to be protected by a ground-fault circuit interrupter. NEC also stipulates a maximum of 150V on primary side of transformer. Please reference NEC codes and all local codes for detailed information.

MOUNTING AND ADJUSTING
 A unique one-piece adjustable mount allows for 360 degree rotation providing versatility when mounting. The stainless steel mounts can be bolted to pool surfaces or fastened to paving stones to avoid penetrations in waterproofing membranes. Note: For NEC, the fixture must be able to be removed for maintenance and inspection without adjustment of the water level. The standard straight cord cap is used when there are no restrictions around the junction. Use the 90 degree cord for continuous flow mounting.

OPERATING TEMPERATURE
 30°F to 122°F (-35°C to 50°C) - wet out water
 35°F to 50°F (2°C to 32°C) - submersed

COLOR AND LIGHT OUTPUT
 The Model 603 utilizes Nichia 1228 white LEDs in five standard colors. Model 603 features (24) LEDs.

LM79 Data - Ball Test Report 15972
 Catalog Number: WSLB603-140-30K-277V-AS-NSB-FC-STD
 Description: 72 Nichia 1228 3000K LED's / 30° Winline 603 Submersible Luminaire

Color	Temp	Life	Beam	Mount	Finish	Weight
	(°C)	(hrs)	(mm)	(mm)	(mm)	(lb)
ANSI-Binned 7100K	375	12.1	31.0	6.3	37	12" - 5.8 lb
ANSI-Binned 7200K	441	12.1	45.0	8.0	37	18" - 4.4 lb
ANSI-Binned 7300K	428	12.1	45.0	8.0	37	21" - 6.8 lb
ANSI-Binned 4000K	490	12.1	45.0	8.0	37	30" - 5.8 lb
Non-ANSI-Binned 5000K	558	12.1	45.0	7.0	37	36" - 6.8 lb
						48" - 7.1 lb

Go to www.philipslighting.com for more information.
 Philips Lighting reserves the right to make design changes without prior notice.



Winline 603 is ETL listed for submersible applications and complies with UL Standard E16. Photometric listing of luminaire fixture is not available. Results shown are based on out-of-water testing. Consult factory for details.

PHILIPS LIGHTING CORPORATION

Series Model Length Beam Spread LED Code Voltage Mount Finish Power Feed Special

Winline Lighting | Winline LED | 3760 West Fourth Street • Winona, MN 55987 | 507.454.5113 | fax: 507.452.8528 | www.winline-lighting.com 63

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American House
 SENIOR LIVING COMMUNITIES
 ROCHESTER HILLS, MICHIGAN

08.14.13 Site Plan Approval
 06.28.13 Site Plan Approval
 DATE ISSUE

SEAL

 THOMAS G. CROW
 ENGINEER
 No. 56658
 PROFESSIONAL ENGINEER

FSP PROJECT NO.

DRAWING TITLE
 Site Lighting Fixture Cuts and Details

DRAWING NUMBER

E.902

CITY FILE #99-007.4

NOT TO BE USED AS CONSTRUCTION DRAWINGS