

## **PLANNING AND DEVELOPMENT SERVICES STAFF REPORT**

**For Planning Commission Meeting of October 1, 2013**

**SUBJECT: Ann Arbor Christian Reformed Church Special Exception Use and Site Plan for City Council Approval  
(1717 Broadway Street)  
File Nos. SEU13-003 and SP13-032**

### **PROPOSED CITY PLANNING COMMISSION MOTION**

The Ann Arbor City Planning Commission, after hearing all interested persons and reviewing all relevant information, finds the petition substantially meets the standards in Chapter 55 (Zoning Ordinance), Section 5:104 (Special Exceptions), and approves the Ann Arbor Christian Reformed Church Special Exception Use for a church use with a maximum capacity of 126.

### **PROPOSED CITY PLANNING COMMISSION MOTION**

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve the Ann Arbor Christian Reformed Church Site Plan, subject to satisfaction of all code requirements prior to issuance of building permits.

### **STAFF RECOMMENDATION**

Staff recommends the special exception use be **approved** because the proposed use is of such location, size and character as to be compatible with the zoning district in which the site is situated; and the location and size of the proposed use, its nature and intensity, the site layout and access, and effect of the proposed use on public services would not be hazardous or inconvenient to the neighborhood nor unduly conflict with the normal traffic of the neighborhood.

Staff recommends **approval** of the site plan, because it complies with applicable local, state and federal laws, ordinances, standards and regulations; limits the disturbance of natural features to the minimum necessary to allow a reasonable use of the land; and does not cause a public or private nuisance and does not have a detrimental effect on the public health, safety or welfare.

### **LOCATION**

The site is located on Broadway Street, just southwest of the intersection with Plymouth Road. This site is located in the Northeast planning area and the Traver Creek sub-watershed.

## **DESCRIPTION OF PETITION**

The petitioner seeks site plan approval to remove five modular classroom buildings and construct a 12,850 square foot, two-story education wing to the rear of the existing church in place of the modular classrooms. The new addition will be of a style and proportion similar to the existing church structure, with reverse board-and-batten siding, a low-slung roof, and similar fenestration style. It will be used for the church's educational activities.

The petitioner also seeks special exception use approval to continue a church use in an existing church in an R1C (Single-Family Dwelling District) zoning district. The church currently has 126 seats, and will remain at that capacity. The site and existing building have been in use as a church for over 50 years.

The total number of parking spaces will remain the same as the current, though the lower (north) parking lot is being reconfigured to install landscape islands and reconfigure the barrier-free parking spaces. Class C bicycle parking spaces will be located near the two primary entrances to the building.

A new pedestrian walkway is proposed to provide direct access from the sidewalk in the Broadway right-of-way to the north side door of the church where the administrative offices are located. A small missing section of an existing walkway along the upper parking lot would be filled in to provide access to the sanctuary. The public sidewalk along Broadway Street, which stops short of the south property line, would be extended approximately 20 feet to the southwest. No public sidewalk exists in front of the three properties on Broadway west of this site and the commercial property frontage on the east of this site.

There are eight landmark trees on the site. One landmark tree, an 18" blue spruce in poor health, is proposed to be removed. An existing storm water detention basin on the northwest corner of the site, which is connected to the city storm water system, will be expanded slightly.

The estimated cost of construction is \$3,000,000, which also includes some interior space renovation and rearrangement.

## **CITIZEN PARTICIPATION**

The petitioner mailed out 818 postcards to owners and addresses within 500 feet of the site, per the Citizen Participation Ordinance. As of September 24, no comments had been received.

### SURROUNDING LAND USES AND ZONING

	LAND USE	ZONING
NORTH	Multiple-family residential	R4B (Multiple-Family Dwelling District)
EAST	Retail shopping center	C1 Local Business District
SOUTH	Vacant (University of Michigan)	TWP Township
WEST	Multiple-family residential Single-family residential	R4B (Multiple-family Dwelling District) R1C (Single-family Dwelling District)

### COMPARISON CHART

		EXISTING	PROPOSED	REQUIRED
Zoning		R1C	R1C	R1C (as a special exception use)
Gross Lot Area		187,166 sf (4.3 acres)	187,166 sf (4.3 acres)	7,200 sf MIN
Usable Floor Area		30,522 sf	37,474 sf	Not applicable
Setbacks	Front (south)	200 ft	200 ft	25 ft MIN
	Side (east)	173 ft	171 ft	5 ft MIN
	Side (west)	28 ft	39 ft	5 ft MIN
	Rear (north)	173 ft	173 ft	30 ft MIN
Height		25 ft	22 ft (from average grade)	30 ft MAX
Parking - Automobiles		142 spaces	142 spaces	106 spaces MIN
Parking – Bicycles		10 Class C	10 Class C	7 Class C MIN

### HISTORY

The original sanctuary was constructed in 1962, with additions made in 1967. In 1991, Planning Commission approved a special exception use for a private school with a maximum of 80 students using four modular classrooms behind the church building. The site plan approved at that time included parking lot improvements and an addition to the church. The school moved to

a new location in 2003, and the modular classrooms have now reached the end of their life cycle. Site plans are on file.

## **PLANNING BACKGROUND**

The site is located in the Northeast planning area. The City of Ann Arbor Master Plan: Land Use Element recommends multiple-family residential for this parcel, and for properties immediately to the north and west. The lot to the east that is home to Plymouth View retail plaza is recommended for commercial uses. The large parcel across Broadway that is owned by the University of Michigan is planned for public and quasi-public uses.

## **SPECIAL EXCEPTION USE STANDARDS**

The Planning Commission, in arriving at its decision relative to any application for a special exception, shall apply the following standards (petitioner's response in regular type, *staff comments in italic type*):

### Use and Specific Standards

**The applicant requests special exception use approval to permit the following use(s):**  
Church.

### **General Standards**

The proposed use(s) shall be of such location, size and character as to be compatible with the appropriate and orderly development of the zoning district and adjacent zoning districts in which the site is situated. In applying this standard, the Planning Commission shall consider whether the proposed use:

**1. Will be consistent with the general objectives of the City Master Plan.**

Yes – current zoning is R1C and a church is an allowed Special Exception Use.

*Churches and church facilities are permitted uses in single and two-family districts with special exception use approval.*

**2. Will be designed, constructed, operated and maintained in a manner that is compatible with the existing and planned character of the general vicinity.**

Yes – the site has been used as a church for over 50 years.

**3. Will be consistent with the general character of the neighborhood considering population density, design, scale and bulk; and the intensity and character of activity.**

Yes – surrounding uses are R4B zoning to the east, north, and south, C1 zoning to the east, and R1C to the west. The existing and proposed additions are a similar scale as the surrounding apartment buildings.

**4. Will not be detrimental to the use, peaceful enjoyment, economic value or development of neighborhood property, or the neighborhood area in general.**

The church has existed on the site for over 50 years and pre-dates the surrounding buildings.

**5. Will not have a detrimental effect on the natural environment.**

Minimal impact on the natural environment. One landmark tree is to be removed and mitigated.

*The landmark tree proposed to be removed is an 18" blue spruce.*

**6. The location and access to off-street parking and the safe provision for pedestrian traffic.**

The site has two separate parking lots and entrances, both on Broadway. Pedestrian access is by means of a sidewalk along Broadway and an interior sidewalk at the upper parking lot.

**7. The relationship of the proposed use to main traffic thoroughfares and to streets and road intersections.**

Both driveways access Broadway. Lower lot driveway is more than 500 feet from the Broadway/Plymouth Road intersection.

**8. Vehicular turning movements in relation to traffic flow routes.**

Broadway has a low traffic volume. At this location the predominant traffic flow is to and from the close by Plymouth intersection.

**9. The intensity and character of traffic and parking conditions on the site and in the general area.**

Typical peak traffic is generated on Sundays when surrounding traffic volumes are low. Weddings and funerals are occasional events that produce traffic for short increments but usually not during peak traffic times. Existing and proposed parking exceeds current City requirements.

**10. The requirements for additional public services and facilities which will be created by the proposed use will not be detrimental to the social and economic welfare of the community.**

A new fire hydrant and fire service line are proposed to service the proposed addition.

### UNIT COMMENTS

Systems Planning/Engineering – A proposed sidewalk extension on Broadway Street must be reviewed at the construction plan stage, and every attempt must be made to bring the sidewalk into ADA compliance.

Prepared by: Jill Thacher, City Planner  
Reviewed by: Wendy Rampson, Planning Manager

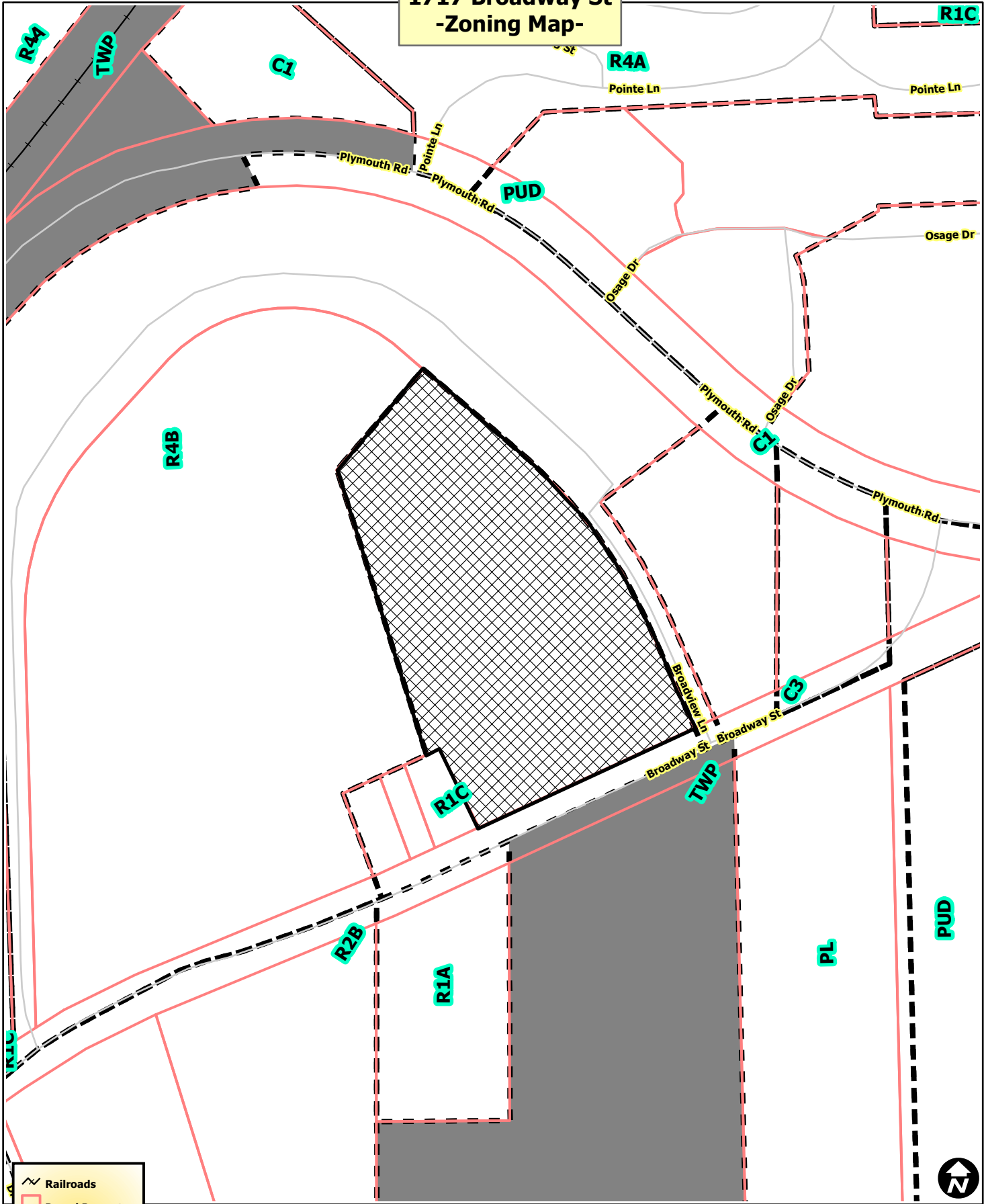
Attachments:   Zoning/Parcel Map  
                    Aerial Photo  
                    Site Plan  
                    Elevations

c:     Petitioner/Owner:   Ann Arbor Christian Reformed Church  
                                  1717 Broadway St.  
                                  Ann Arbor, MI 48103

          Petitioner's Representative:   Midwestern Consulting, LLC  
  3815 Plaza Dr.  
  Ann Arbor, MI 48108

          Systems Planning  
          File Nos. SEU13-003 and SP13-032

# 1717 Broadway St -Zoning Map-



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# 1717 Broadway St -Aerial Map-



-  Railroads
-  Parcel Property



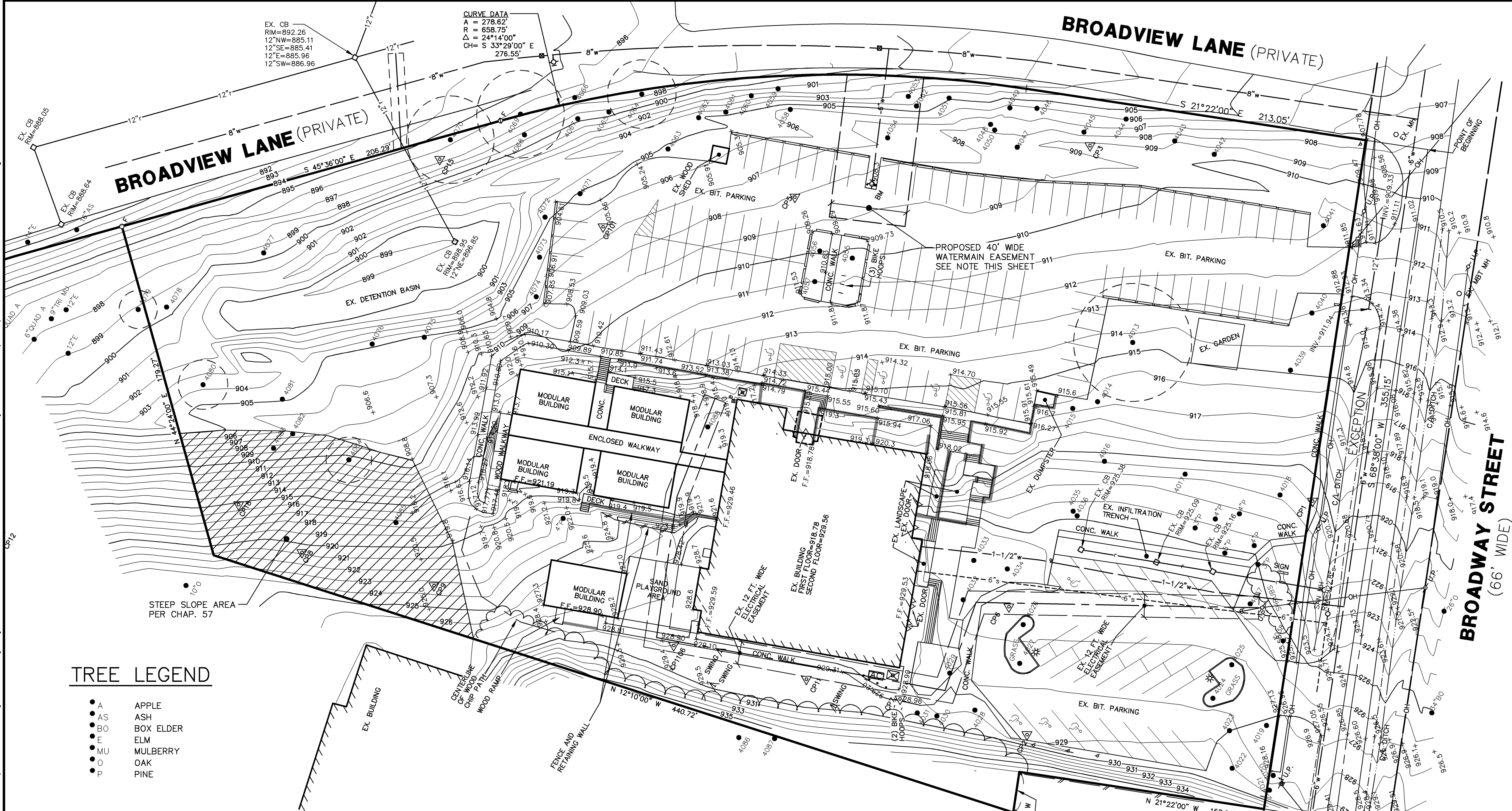
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Map Created: 6/26/2013





### TREE LEGEND

- A APPLE
- AS ASH
- BO BOX ELDER
- E ELM
- MU MULBERRY
- O OAK
- P PINE

### TREE LIST & EVALUATION

TAG#	DBH	COMMON NAME	GENUS/ SPECIES	STEMS	SCORE	NOTES	TAG#	DBH	COMMON NAME	GENUS/ SPECIES	STEMS	SCORE	NOTES
4013	31"	Silver Maple	<i>Acer saccharinum</i>		20	LM	4051	12"	Red Pine	<i>Pinus resinosa</i>			
4014	9"	Red Pine	<i>Pinus resinosa</i>				4052	11"	Red Pine	<i>Pinus resinosa</i>			
4015	10"	Red Pine	<i>Pinus resinosa</i>				4053	12"	Red Pine	<i>Pinus resinosa</i>			
4016	15"	Sycamore	<i>Plantanus occidentalis</i>				4054	4"	Tuliptree	<i>Liriodendron tulipifera</i>			
4017	11"	Sycamore	<i>Plantanus occidentalis</i>				4055	7"	Honey Locust	<i>Gleditsia triacanthos</i>			
4018	12"	Red Oak	<i>Quercus rubra</i>				4056	4"	Honey Locust	<i>Gleditsia triacanthos</i>			
4019	7"	Red Maple	<i>Acer rubrum</i>				4057	7"	Honey Locust	<i>Gleditsia triacanthos</i>			
4020	13"	Blue Spruce	<i>Picea pungens</i>				4058	11"	Red Pine	<i>Pinus resinosa</i>			
4021	10"	Blue Spruce	<i>Picea pungens</i>				4059	11"	Red Pine	<i>Pinus resinosa</i>			
4022	14"	Blue Spruce	<i>Picea pungens</i>				4060	11"	Red Pine	<i>Pinus resinosa</i>			
4023	7"	Red Maple	<i>Acer rubrum</i>				4061	11"	Red Pine	<i>Pinus resinosa</i>			
4024	4"	Red Oak	<i>Quercus rubra</i>				4062	11"	Red Pine	<i>Pinus resinosa</i>			
4025	5"	Red Oak	<i>Quercus rubra</i>				4063	15"	Box Elder	<i>Acer negundo</i>	3		
4026	3"	Red Oak	<i>Quercus rubra</i>				4064	18"	Blue Spruce	<i>Picea pungens</i>		14	LM, Remove
4027	3"	Red Oak	<i>Quercus rubra</i>				4065	14"	Blue Spruce	<i>Picea pungens</i>			
4028	4"	Red Maple	<i>Acer rubrum</i>				4066	12"	Blue Spruce	<i>Picea pungens</i>			
4029	6"	Red Maple	<i>Acer rubrum</i>				4067	21"	Black Locust	<i>Robinia pseudoacacia</i>			INV
4030	14"	Blue Spruce	<i>Picea pungens</i>				4068	13"	Black Locust	<i>Robinia pseudoacacia</i>			INV
4031	14"	Blue Spruce	<i>Picea pungens</i>				4069	23"	Sugar Maple	<i>Acer saccharum</i>		21	LM
4032	6"	Red Maple	<i>Acer rubrum</i>				4070	23"	Sugar Maple	<i>Acer saccharum</i>		21	LM
4033	7"	Red Maple	<i>Acer rubrum</i>				4071	11"	Norway Maple	<i>Acer platanoides</i>			INV
4034	13"	Blue Spruce	<i>Picea pungens</i>				4072	12"	Norway Maple	<i>Acer platanoides</i>			INV
4035	5"	Blue Spruce	<i>Picea pungens</i>				4073	11"	Norway Maple	<i>Acer platanoides</i>			INV
4036	8"	Blue Spruce	<i>Picea pungens</i>				4074	12"	Norway Maple	<i>Acer platanoides</i>			INV
4037	6"	Red Maple	<i>Acer rubrum</i>				4075	4"	Crab Apple	<i>Malus coronaria</i>		5	Remove
4038	6"	Red Maple	<i>Acer rubrum</i>				4076	13"	Black Cherry	<i>Prunus serotina</i>			Remove
4039	5"	Red Oak	<i>Quercus rubra</i>				4077	8"	Common Apple	<i>Malus pumila</i>	3		
4040	10"	Red Maple	<i>Acer rubrum</i>				4078	18"	Black Cherry	<i>Prunus serotina</i>		19	LM
4041	5"	Red Maple	<i>Acer rubrum</i>				4079	10"	Common Pear	<i>Pyrus communis</i>	2	19	LM
4042	5"	Horsechestnut	<i>Aesculus hippocastanum</i>			INV	4080	13"	Black Cherry	<i>Prunus serotina</i>	3	21	LM
4043	11"	Black Pine	<i>Pinus nigra</i>				4081	17"	White Mulberry	<i>Morus alba</i>	2		INV, Remove
4044	13"	Red Pine	<i>Pinus resinosa</i>				4082	11"	Black Cherry	<i>Prunus serotina</i>	3		
4045	11"	Red Pine	<i>Pinus resinosa</i>				4083	9"	Black Cherry	<i>Prunus serotina</i>			
4046	12"	Red Pine	<i>Pinus resinosa</i>				4084	12"	American Elm	<i>Ulmus americana</i>	3	22	LM
4047	11"	Norway Maple	<i>Acer platanoides</i>			INV	4085	12"	White Mulberry	<i>Morus alba</i>			INV
4048	10"	Norway Maple	<i>Acer platanoides</i>			INV	4086	17"	Red Pine	<i>Pinus resinosa</i>			
4049	10"	Red Pine	<i>Pinus resinosa</i>				4087	12"	Black Cherry	<i>Prunus serotina</i>			
4050	12"	Red Pine	<i>Pinus resinosa</i>				4088	11"	Higan Cherry	<i>Prunus subhirtella</i>			Remove

LM = LANDMARK TREE, INV = INVASIVE TREE  
Landmark, Protected, and Woodland trees that are proposed to be removed, require mitigation at the rate of 50% DBH

### LEGAL DESCRIPTION

LEGAL DESCRIPTION OF A 4.30 ACRE PARCEL OF LAND  
LOCATED IN THE NE 1/4 OF SECTION 21, T2S, R6E,  
CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN  
(NOT SURVEYED)

Commencing at the intersection of the east line of Section 21, T2S, R6E, City of Ann Arbor, Washtenaw County, Michigan with the centerline of Broadway (66' wide) thence S 68°38'00" W 303.30 feet along the centerline of Broadway to the POINT OF BEGINNING,

Thence S 68°38'00" W 355.15 feet along the centerline of Broadway;  
Thence N 21°22'00" W 162.90 feet;  
Thence S 68°38'00" W 21.50 feet;  
Thence N 12°10'00" W 440.72 feet;  
Thence N 44°24'00" E 179.27 feet;  
Thence S 45°36'00" E 206.29 feet;  
Thence southeasterly 278.62 feet in the arc of a circular curve to the right, radius 658.75 feet, central angle 24°14'00", chord S 33°29'00" E 276.55 feet;  
Thence S 21°22'00" E 213.05 feet to the POINT OF BEGINNING. Excepting therefrom Broadway Avenue. Being a part of the NE 1/4 of said Section 21 and containing 4.30 acres of land, more or less. Being subject to easements and restrictions of record, if any.

### BENCH MARK

BM - TOP OF WEST VALVE OF A FIRE HYDRANT LOCATED ±100' EAST OF CHURCH BUILDING AND ±300' NORTH OF BROADWAY STREET. ELEV. = 909.83 NAVD88

### NOTE:

EXACT LOCATIONS OF EXISTING SANITARY SEWER LEAD AND EXISTING DOMESTIC WATER SERVICE LEADS ARE UNKNOWN.

### WATERMAIN EASEMENT:

CURRENT TITLE WORK INDICATES THERE IS NO EASEMENT FOR THE EXISTING FIRE HYDRANT. PETITIONER WILL GRANT EASEMENT PER CITY REQUIREMENTS.

### EXISTING BUILDING USE:

EXISTING MODULARS ARE CURRENTLY UTILIZED AS CLASS ROOMS FOR CHURCH RELATED ACTIVITIES.

### GENERAL SOILS DESCRIPTION

SOIL SURVEY OF WASHTENAW COUNTY  
USDA SOIL CONSERVATION SERVICE, 1977

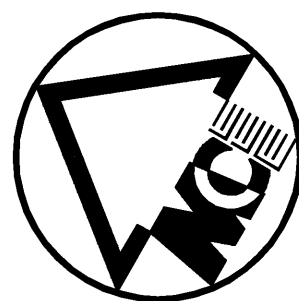
MIAMI SERIES  
WELL DRAINED, GENTLY SLOPING TO VER STEEP SOILS FORMED IN LOAMY TEXTURED GLACIAL TILL. THESE SOILS ARE ON TILL PLAINS AND MORAINES. HIGH AVAILABLE WATER CAPACITY AND PERMEABILITY IS MODERATE OR MODERATELY SLOW.

MmC- MIAMI LOAM, 6 TO 12 PERCENT SLOPES.  
THE HAZARD OF EROSION IS MODERATE AND THE RUNOFF IS MEDIUM. DEPTH TO SEASONAL HIGH WATER TABLE IS >5 FEET.

PREPARED BY:  
MIDWESTERN CONSULTING, L.L.C.

PATRICK L. HASTINGS P.S. #37277

The underground utilities shown have been located from field survey information and existing records. 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 the surveyor does certify that they are located as accurately as possible from the information available.



SCALE: 1" = 30'

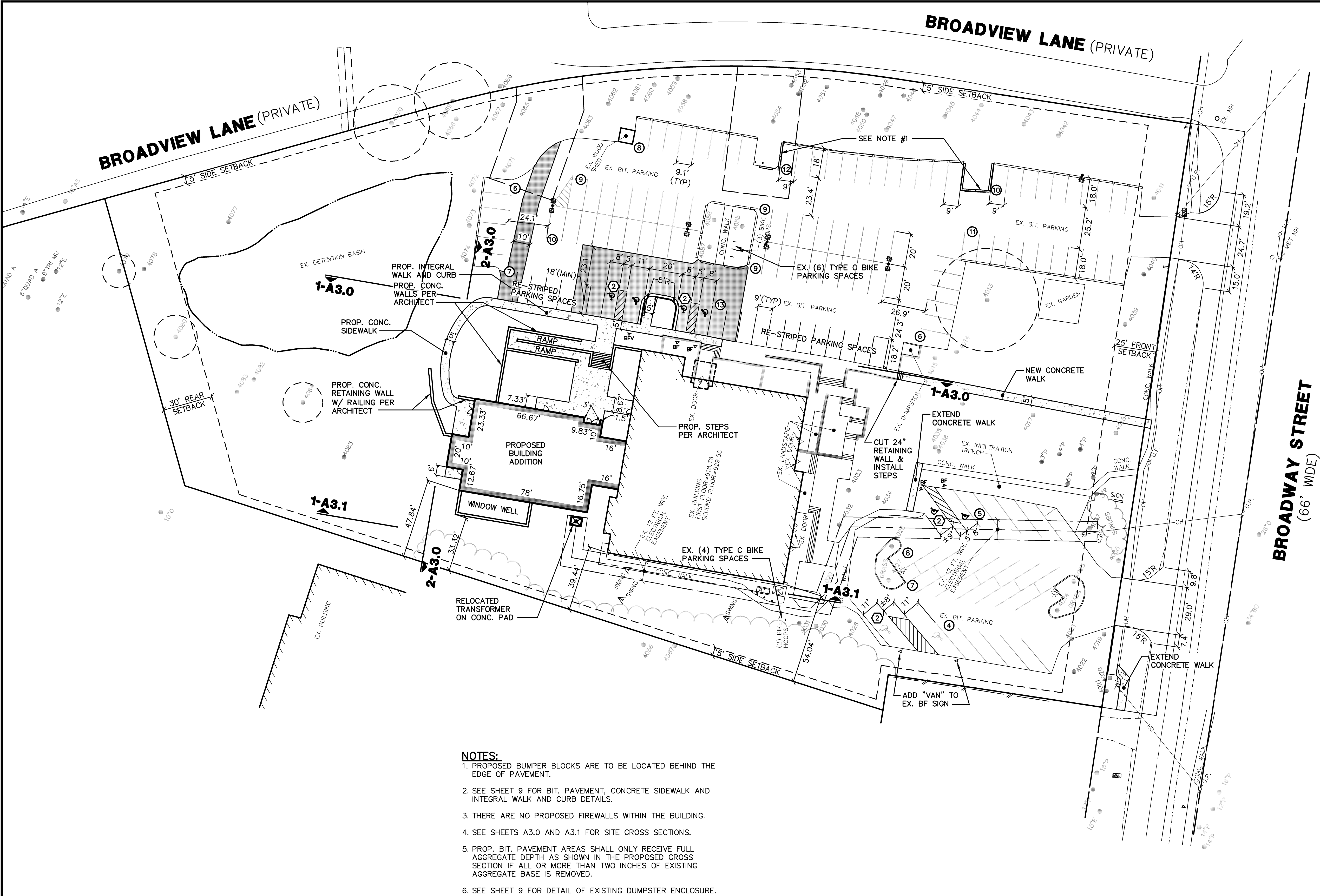


Know what's below.  
Call before you dig.

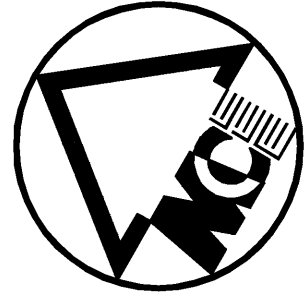
### LEGEND

- 907 EXIST. CONTOUR
- ×907.2 EXIST. SPOT ELEVATION
- GUY WIRE
- o-u.p. EXIST. UTILITY POLE
- OH ELEC. TRANSFORMER
- OH EXIST. OVERHEAD UTILITY LINE
- \* EXIST. LIGHT POLE
- t EXIST. TELEPHONE LINE
- e EXIST. ELECTRIC LINE
- g EXIST. GAS LINE
- g EXIST. GAS VALVE
- w EXIST. WATER MAIN
- h EXIST. HYDRANT
- g EXIST. GATE VALVE IN BOX
- g EXIST. GATE VALVE IN WELL
- g EXIST. CURB STOP & BOX
- g EXIST. STORM SEWER
- g EXIST. CATCH BASIN OR INLET
- g EXIST. ROOF DRAIN
- g EXIST. SANITARY SEWER
- g EXIST. CLEANOUT
- g SIGN
- g PARKING METER
- g TELEPHONE RISER
- g TRAFFIC SIGNAL CONTROL BOX
- g ELECTRIC METER
- g WATER METER
- g GAS METER
- g POST
- g SINGLE TREE
- g FENCE
- g TREE OR BRUSH LIMIT
- g CRITICAL ROOT ZONE FOR LANDMARK TREE
- g SECTION CORNER
- g FOUND IRON PIPE
- g FOUND P.K.
- g FOUND IRON ROD
- g CONTROL PT.





- NOTES:**
1. PROPOSED BUMPER BLOCKS ARE TO BE LOCATED BEHIND THE EDGE OF PAVEMENT.
  2. SEE SHEET 9 FOR BIT. PAVEMENT, CONCRETE SIDEWALK AND INTEGRAL WALK AND CURB DETAILS.
  3. THERE ARE NO PROPOSED FIREWALLS WITHIN THE BUILDING.
  4. SEE SHEETS A3.0 AND A3.1 FOR SITE CROSS SECTIONS.
  5. PROP. BIT. PAVEMENT AREAS SHALL ONLY RECEIVE FULL AGGREGATE DEPTH AS SHOWN IN THE PROPOSED CROSS SECTION IF ALL OR MORE THAN TWO INCHES OF EXISTING AGGREGATE BASE IS REMOVED.
  6. SEE SHEET 9 FOR DETAIL OF EXISTING DUMPSTER ENCLOSURE.



SCALE: 1" = 30'



Know what's below.  
Call before you dig.

### LEGEND

- |  |                                       |
|--|---------------------------------------|
|  | SIGN                                  |
|  | RAMP                                  |
|  | EXIST. CURB & GUTTER                  |
|  | PROP. SPILL-OUT CURB & GUTTER         |
|  | EXIST. LIGHT POLE                     |
|  | PROP. LIGHT POLE                      |
|  | BARRIER FREE PARKING SIGN             |
|  | BARRIER FREE VAN PARKING SIGN         |
|  | NUMBER OF PARKING SPACES              |
|  | NUMBER OF BARRIER FREE PARKING SPACES |
|  | BARRIER FREE PARKING SPACE            |
|  | FULL-DEPTH BITUMINOUS PAVING          |
|  | 4" THICK CONCRETE SIDEWALK            |

JOB No. 13085

DATE: 7/29/13

SHEET 4 OF 16

REV. DATE 08-10-13 CAD: SGF

PER CITY REVIEW 08-24-13 ENG: AG

TECH: SGF

SITE: 13085SP1

PRF

ANN ARBOR CHRISTIAN REFORMED CHURCH

SITE PLAN

DIMENSIONAL SITE PLAN

CLIENT

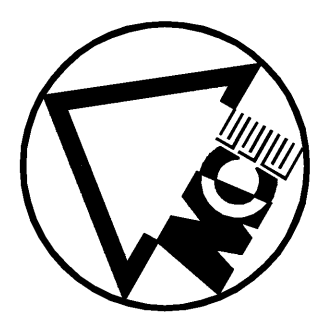
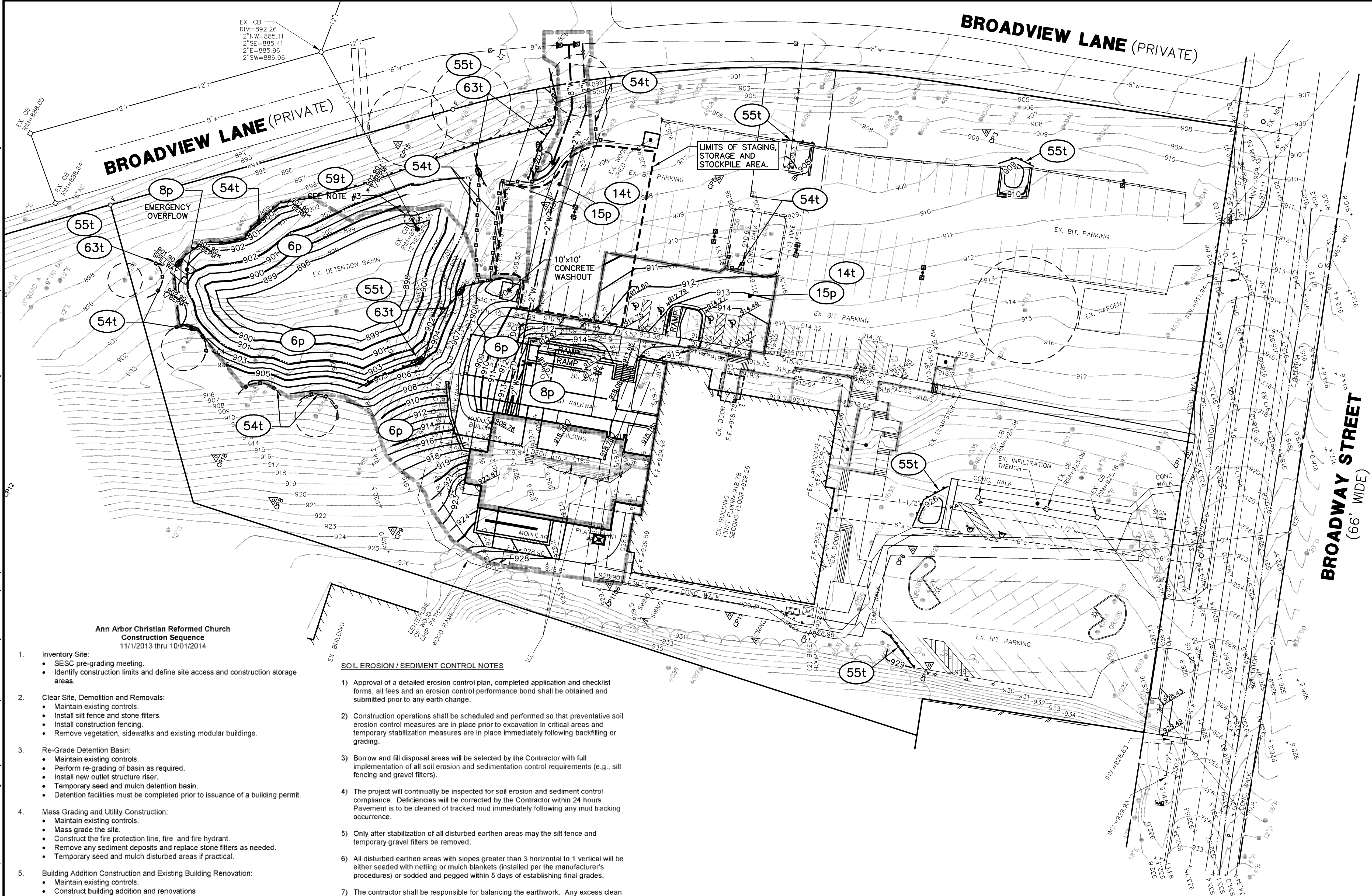
ANN ARBOR CHRISTIAN REFORMED CHURCH  
1717 BROADWAY STREET  
ANN ARBOR, MI 48104

MIDWESTERN CONSULTING



Civil, Environmental and  
Transportation Engineers  
Planners, Surveyors  
Landscape Architects  
3815 Plaza Drive  
Ann Arbor, Michigan 48108  
Phone: 734.995.0200  
Fax: 734.995.0599





SCALE: 1" = 30'



## LEGEND

- EXIST. CONTOUR
- PROP. CONTOUR
- EXIST. SPOT ELEVATION
- PROP. SPOT ELEVATION
- DRAINAGE DIRECTION
- EXIST. WATER MAIN
- PROP. WATER MAIN
- EXIST. HYDRANT
- PROP. HYDRANT
- EXIST. GATE VALVE IN BOX
- PROP. GATE VALVE IN BOX
- EXIST. GATE VALVE IN WELL
- PROP. GATE VALVE IN WELL
- EXIST. CURB STOP & BOX
- PROP. CURB STOP & BOX
- PROP. BLOW-OFF
- EXIST. STORM SEWER
- PROP. STORM SEWER
- EXIST. CATCH BASIN OR INLET
- PROP. CATCH BASIN OR INLET
- END SECTION
- HEAD WALL
- CULVERT
- EDGE DRAIN
- EXIST. SANITARY SEWER
- PROP. SANITARY SEWER
- SINGLE TREE
- FENCE
- TREE OR BRUSH LIMIT
- PROP. SILT FENCE
- PROP. TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE

## NOTES:

- PROPOSED PAVEMENT AND SIDEWALK TO MATCH EXISTING PAVEMENT/ SIDEWALK GRADE AT REMOVAL LIMITS.
- SEE SHEET 9 FOR ALL SOIL EROSION AND SEDIMENTATION CONTROL AND CONCRETE WASHOUT DETAILS.
- INLET FILTER TO BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND SHALL BE REMOVED AFTER THE PERMANENT OUTLET STRUCTURE HAS BEEN INSTALLED.
- ALL GRAVEL FILTERS SHALL BE 1.5 CY OF MDOT 6A WASHED STONE AND LOCATED AS REQUIRED AT LOW POINTS ALONG THE SILT FENCE.

- Ann Arbor Christian Reformed Church Construction Sequence**  
11/1/2013 thru 10/01/2014
- Inventory Site:**
    - SESC pre-grading meeting.
    - Identify construction limits and define site access and construction storage areas.
  - Clear Site, Demolition and Removals:**
    - Maintain existing controls.
    - Install silt fence and stone filters.
    - Install construction fencing.
    - Remove vegetation, sidewalks and existing modular buildings.
  - Re-Grade Detention Basin:**
    - Maintain existing controls.
    - Perform re-grading of basin as required.
    - Install new outlet structure riser.
    - Temporary seed and mulch detention basin.
    - Detention facilities must be completed prior to issuance of a building permit.
  - Mass Grading and Utility Construction:**
    - Maintain existing controls.
    - Mass grade the site.
    - Construct the fire protection line, fire and fire hydrant.
    - Remove any sediment deposits and replace stone filters as needed.
    - Temporary seed and mulch disturbed areas if practical.
  - Building Addition Construction and Existing Building Renovation:**
    - Maintain existing controls.
    - Construct building addition and renovations.
  - Sidewalk Installation, Parking Lot Paving and Fine Grade the site**
    - Maintain existing controls.
    - Install paving Subbase and sidewalks/integral walk and curb
    - Install all courses of bituminous paving
    - Fine grade, seed and mulch (seed and mat slopes greater than 4:1) disturbed areas behind curb within 5 days of establishing final grades.
    - Remove accumulated sediment from the detention basin and replace the stone outlet filters if necessary.
  - Landscaping and Site Clean Up:**
    - Maintain existing controls.
    - Seed and mulch or sod areas that have not taken.
    - Plant trees, shrubs, landscape items and mitigation features prior to issuance of certificates of occupancy for last building.
    - Implement final seeding and planting for the detention basins.
    - Permanent soil erosion controls must be installed within 5 days of final grading or final earth change.
  - Follow-Up After the Site is Stabilized:**
    - Remove silt fence and stone filters.
    - Final removal of sediment from the detention basin
  - Finalize Building Construction:**
    - Maintain permanent soil erosion control measures.
    - Remove construction fencing.

## SOIL EROSION / SEDIMENT CONTROL NOTES

- Approval of a detailed erosion control plan, completed application and checklist forms, all fees and an erosion control performance bond shall be obtained and submitted prior to any earth change.
- Construction operations shall be scheduled and performed so that preventative soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling or grading.
- Borrow and fill disposal areas will be selected by the Contractor with full implementation of all soil erosion and sedimentation control requirements (e.g., silt fencing and gravel filters).
- The project will continually be inspected for soil erosion and sediment control compliance. Deficiencies will be corrected by the Contractor within 24 hours. Pavement is to be cleaned of tracked mud immediately following any mud tracking occurrence.
- Only after stabilization of all disturbed earthen areas may the silt fence and temporary gravel filters be removed.
- All disturbed earthen areas with slopes greater than 3 horizontal to 1 vertical will be either seeded with netting or mulch blankets (installed per the manufacturer's procedures) or sodded and pegged within 5 days of establishing final grades.
- The contractor shall be responsible for balancing the earthwork. Any excess clean earth material shall be removed from the site and properly disposed of.

## EROSION AND SILTATION MAINTENANCE PROCEDURES

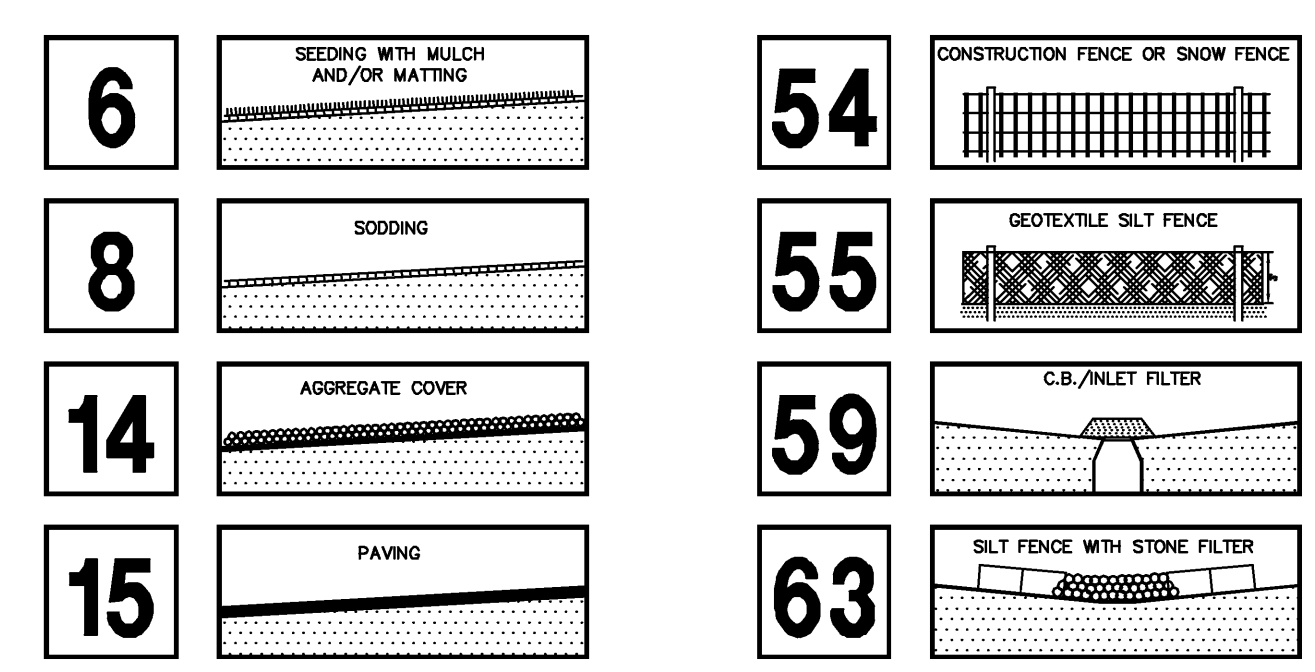
- Site shall be monitored for erosion and silt build-up. In the event of any significant erosion, protective measures such as re-grading, seeding and mulching will take place at areas of concern.
- If at any time the depth of silt and sediment comes to within 12" of the top of any silt fence, all silt and sediment in that area shall be completely removed to the original grade.
- All temporary gravel filters shall be adjusted as to location per actual field conditions. The removal of trapped sediment and the cleaning or replacing of clogged stone may be necessary after any storm event during the project.
- Care shall be taken to insure that the drainage holes in any outlet structure at low points in the pavement remain operational (open) until all paving is completed. All such holes are to be grouted shut after contributing areas are completed.
- Pavement to be cleaned of tracked mud immediately following each mud tracking occurrence.

## COST AND VOLUME ESTIMATES

- The estimated volume of cut/fill: a) 1,000 cubic yards of cut or excavation; b) 1,000 cubic yards fill or embankment.
- The estimated cost of soil erosion control measures will be approximately \$5,000.

## SOIL EROSION CONTROL MEASURES

t = temporary p = permanent



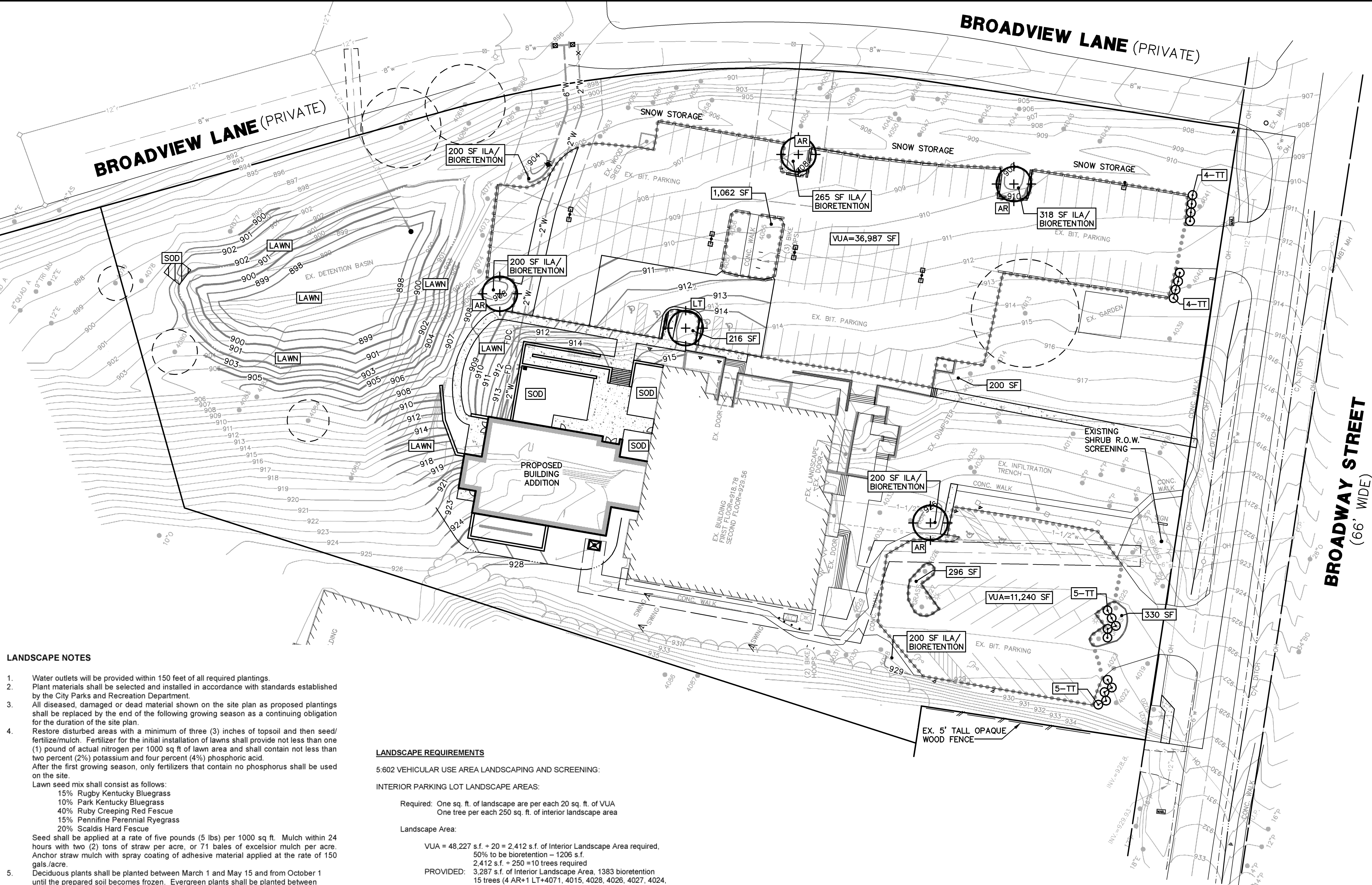
## Stormwater Management System Maintenance Plan

- Responsibility for Maintenance:**
  - During construction, it is the contractor's responsibility to perform the maintenance.
  - Following construction, it will be the responsibility of Ann Arbor Christian Reformed Church to perform the maintenance.
- Maintenance Tasks and Schedule**
  - See the chart on this sheet. The chart describes maintenance tasks to be performed.
  - Immediately following construction, the developer will have the stormwater management system inspected by an engineer to verify grades of the detention and filtration areas and to make recommendations for any necessary sediment removal.

## MAINTENANCE PLAN BUDGET

Annual inspection of detention basins for sediment accumulation and erosion	\$250.00
Removal of sediment accumulation every two (2) years, as needed	\$600.00
Repair and reseed areas of basin erosion	\$400.00
Inspect for erosion in swales and pond overflow annually and after major storms	\$500.00
Reseed and areas of erosion, repair rip-rap annually and after major storms	\$500.00
Mowing of basin and care of plantings	\$300.00
Clean drives semiannually	\$500.00
<b>Total Annual Budget</b>	<b>\$3,050.00</b>





LANDSCAPE NOTES

- Water outlets will be provided within 150 feet of all required plantings.
- Plant materials shall be selected and installed in accordance with standards established by the City Parks and Recreation Department.
- All diseased, damaged or dead material shown on the site plan as proposed plantings shall be replaced by the end of the following growing season as a continuing obligation for the duration of the site plan.
- Restore disturbed areas with a minimum of three (3) inches of topsoil and then seed/fertilize/mulch. Fertilizer for the initial installation of lawns shall provide not less than one (1) pound of actual nitrogen per 1000 sq ft of lawn area and shall contain not less than two percent (2%) potassium and four percent (4%) phosphoric acid. After the first growing season, only fertilizers that contain no phosphorus shall be used on the site.  
Lawn seed mix shall consist as follows:  
15% Rugby Kentucky Bluegrass  
10% Park Kentucky Bluegrass  
40% Ruby Creeping Red Fescue  
15% Pennine Perennial Ryegrass  
20% Scalds Hard Fescue  
Seed shall be applied at a rate of five pounds (5 lbs) per 1000 sq ft. Mulch within 24 hours with two (2) tons of straw per acre, or 71 bales of excelsior mulch per acre. Anchor straw mulch with spray coating of adhesive material applied at the rate of 150 gals./acre.
- Deciduous plants shall be planted between March 1 and May 15 and from October 1 until the prepared soil becomes frozen. Evergreen plants shall be planted between March 1 and June 1 and from August 15 and September 15.
- All plants except ground cover are to receive four (4) inches of shredded bark mulch. Ground cover to receive two (2) inches of Canadian peat mulch. All mulch beds to have landscape fabric between mulch and planting soil.
- All trees to be located a minimum of 10 feet from public utilities.
- All single trunk, deciduous trees shall have a straight and a symmetrical crown with a central leader. One sided trees or those with thin or open crowns shall not be accepted.
- All evergreen trees shall be branched fully to the ground, symmetrical in shape and have not been sheared in the last three (3) growing seasons.
- Shade trees are to be a minimum of 20 feet on center. Evergreen trees are to be minimum of 12 feet on center. Shade trees in the conflicting land use buffer, if present, are to be 15 feet on center.
- All compacted subgrade soils in proposed landscape areas shall be tilled to a minimum 12-inch depth prior to placement of topsoil, geotextile fabric, or other planting media as specified.
- Planting Soil: Existing, in-place or stockpiled topsoil. Supplement with imported topsoil as needed. Verify suitability of existing surface soil to produce viable planting soil. Remove stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. Mix surface soil with the following soil amendments to produce planting soil:
  - Ratio of Loose Compost to Topsoil by Volume: 1:4.
  - Weight of Lime per 1000 Sq. Ft.: Amend with lime only on recommendation of soil test to adjust soil pH.
  - Weight of Sulfur or Aluminum Sulfate per 1000 Sq. Ft.: Amend with sulfur or aluminum sulfate only on recommendation of soil test to adjust soil pH.
  - Volume of Sand: Amend with sand only on recommendation of Landscape Architect to adjust soil texture.
  - Weight of Slow-Release Fertilizer per 1000 Sq. Ft.: Amend with fertilizer only on recommendation of soil test to adjust soil fertility.

LANDSCAPE REQUIREMENTS

5:602 VEHICULAR USE AREA LANDSCAPING AND SCREENING:

INTERIOR PARKING LOT LANDSCAPE AREAS:

Required: One sq. ft. of landscape are per each 20 sq. ft. of VUA  
One tree per each 250 sq. ft. of interior landscape area

Landscape Area:

VUA = 48,227 s.f. + 20 = 2,412 s.f. of Interior Landscape Area required,  
50% to be bioretention ~ 1206 s.f.

2,412 s.f. + 250 = 10 trees required  
PROVIDED: 3,287 s.f. of Interior Landscape Area, 1383 bioretention  
15 trees (4 AR+1 LT+4071, 4015, 4028, 4026, 4027, 4024, 4025, 4057, 4056, 4055)

RIGHT-OF-WAY SCREENING:

Required: A hedge, dense shrub planting, berm, wall or combination thereof forming a continuous screen at least 30 inches in height above the vehicular use area grade  
One tree per each 30 linear ft. of road right-of-way

R.O.W. = 160 l.f. + 30 = 6 trees + shrubs required

PROVIDED: 7 trees (4022, 4023, 4024, 4025, 4037, 4040, 4041)  
19TT + existing shrubs provided

5:603 CONFLICTING LAND USE BUFFERS:

Required: Average 15 ft required / 8 ft min. required; None required.

Provided: None

Minimum 50% evergreen trees required / None provided.

4' ht screen wall, berm, hedge, or fence required / None provided.

STREET TREE CANOPY LOSS:

None

LANDMARK TREE REPLACEMENT:

Mitigation is not provided for tree #4064, an 18" caliper Blue Spruce since it does not have a Health Evaluation Score greater than 16.  
No other Landmark trees are to be removed.

STREET TREE ESCROW:

None

NOTES:

1. SEE SHEET 9 FOR LANDSCAPE PLANTING DETAILS.

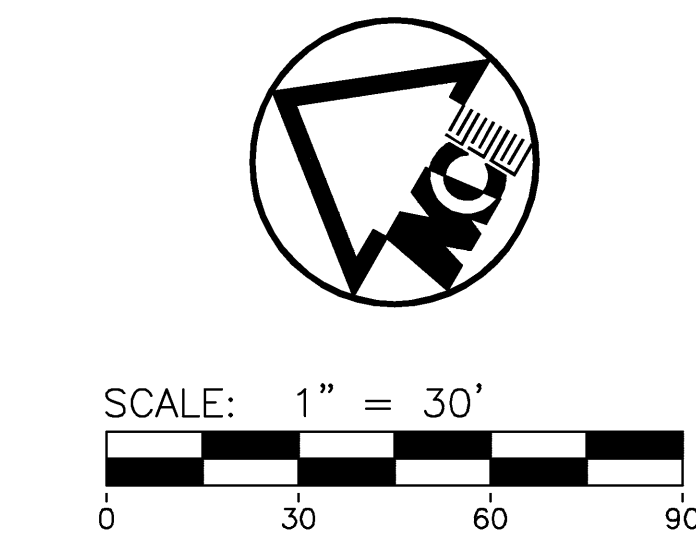
2. ANY GRADING ON THE TREE SIDE OF THE TREE PROTECTION FENCE LIMITS SHALL BE PERFORMED BY HAND TOOLS ONLY WITHIN THE CRITICAL ROOT ZONE OF THE LANDMARK TREES.

Plant Materials List

Quantity	Symbol	Botanical Name	Common Name	Size	Root	Remarks
Trees						
1	LT	<i>Liriodendron tulipifera</i>	Tulip Tree	2.5-3" cal.	BB	
4	AR	<i>Acer rubrum</i>	Red Maple	2.5-3" cal.	BB	
Shrubs						
19	TT	<i>Taxus m. 'tauntoni'</i>	Tauton Yew	24" ht.	BB	

STREET TREE ESCROW:

Street Tree Escrow of \$453.70 will be paid prior to issuing building permits. Checks are to be made payable to: City of Ann Arbor and mailed to Systems Planning Unit, 301 E. Huron St., PO Box 8647, Ann Arbor, MI 48107-8647. Attention: Kerry Gray.



LEGEND

907	EXIST. CONTOUR
907	PROP. CONTOUR
U.P.	EXIST. UTILITY POLE
GUY WIRE	GUY WIRE
OH	ELEC. TRANSFORMER
OH	EXIST. OVERHEAD UTILITY LINE
LP	EXIST. LIGHT POLE
TL	EXIST. TELEPHONE LINE
EL	EXIST. ELECTRIC LINE
GL	EXIST. GAS LINE
WM	EXIST. WATER MAIN
WM	PROP. WATER MAIN
HY	EXIST. HYDRANT
HY	PROP. HYDRANT
GV	EXIST. GATE VALVE IN BOX
GV	PROP. GATE VALVE IN BOX
GV	EXIST. GATE VALVE IN WELL
GV	PROP. GATE VALVE IN WELL
CS	EXIST. CURB STOP & BOX
CS	PROP. CURB STOP & BOX
SS	EXIST. STORM SEWER
SS	PROP. STORM SEWER
CS	EXIST. CATCH BASIN OR INLET
CS	PROP. CATCH BASIN OR INLET
SS	EXIST. SANITARY SEWER
SS	PROP. SANITARY SEWER
TA	ENCLOSED TRASH AREA
MAILBOX	MAILBOX
TV	TELEPHONE RISER
TV	CABLE TELEVISION RISER
EM	ELECTRIC METER
WM	WATER METER
GM	GAS METER
POST	POST
ST	SINGLE TREE
LT	LANDMARK TREE
FENCE	FENCE
TL	TREE OR BRUSH LIMIT
VUA	VUA (VEHICLE USE AREA)

LANDSCAPE LEGEND

+	PROPOSED CANOPY TREE
+	PROPOSED FLOWERING TREE
+	PROPOSED EVERGREEN TREE
+	PROPOSED DECIDUOUS SHRUBS
+	PROPOSED EVERGREEN SHRUBS
+	STREET TREE CANOPY LOSS (MITIGATION PLANTING)
+	PROPOSED GRAVEL
+	PROPOSED BRICK PAVERS (SEE ARCHITECTURAL PLANS)
+	PROPOSED ANNUAL BED (BY OTHERS)
+	PROPOSED EDGING



ANN ARBOR  
CHRISTIAN  
REFORMED  
CHURCH

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13013

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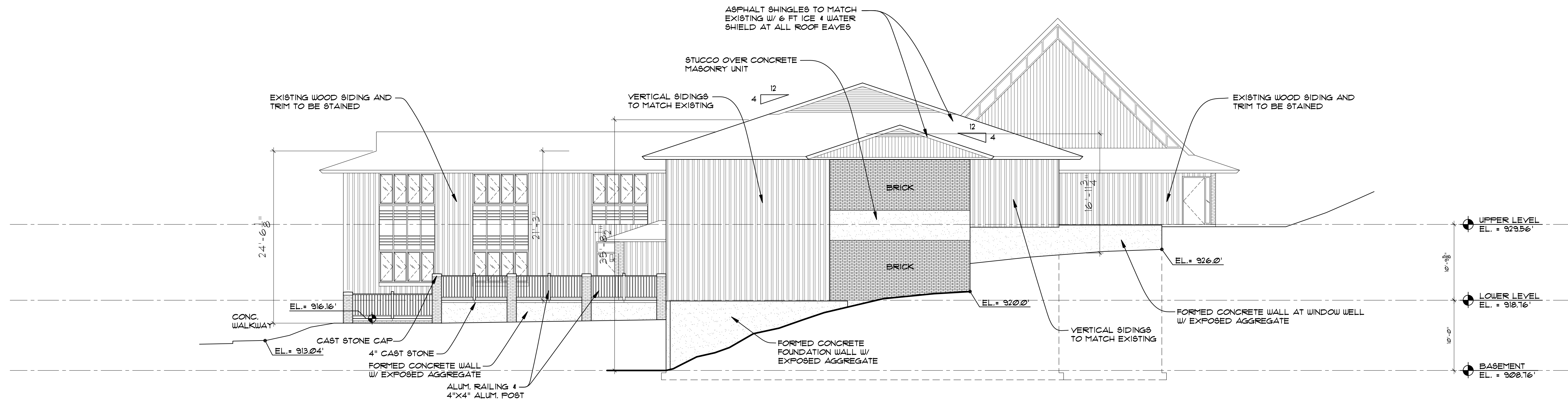
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	8/28/13	PRICING
	9/11/13	REVISED

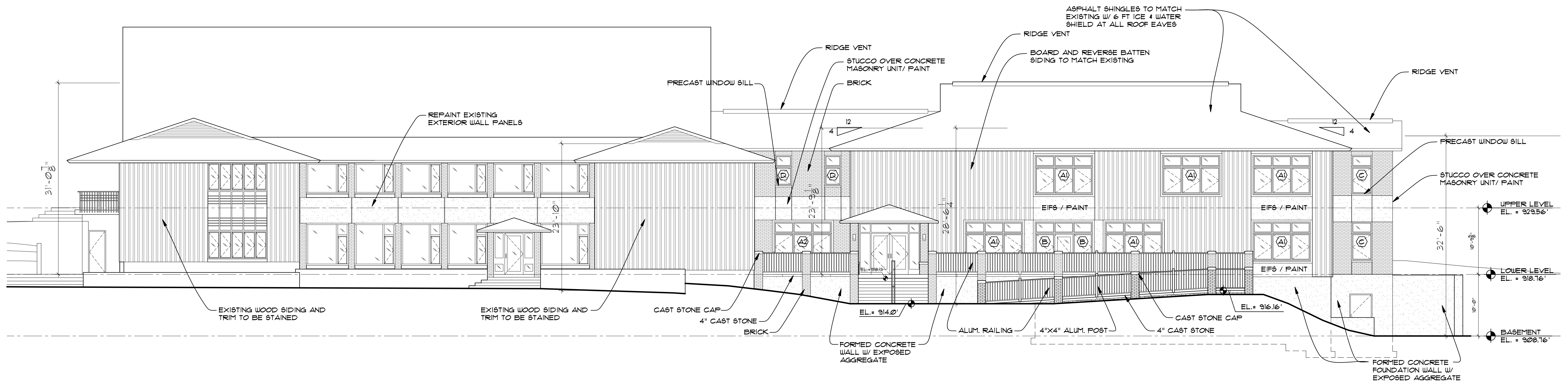
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Project Manager RM

File Name -



2 NORTH ELEVATION  
A3.0 SCALE: 1/8" = 1'



1 EAST ELEVATION  
A3.0 SCALE: 1/8" = 1'

- NOTES:
- ALL EXISTING WOOD SIDING AND TRIM TO BE STAINED
  - EXISTING EXTERIOR WALL PANEL TO BE REPAINTED

A3.0

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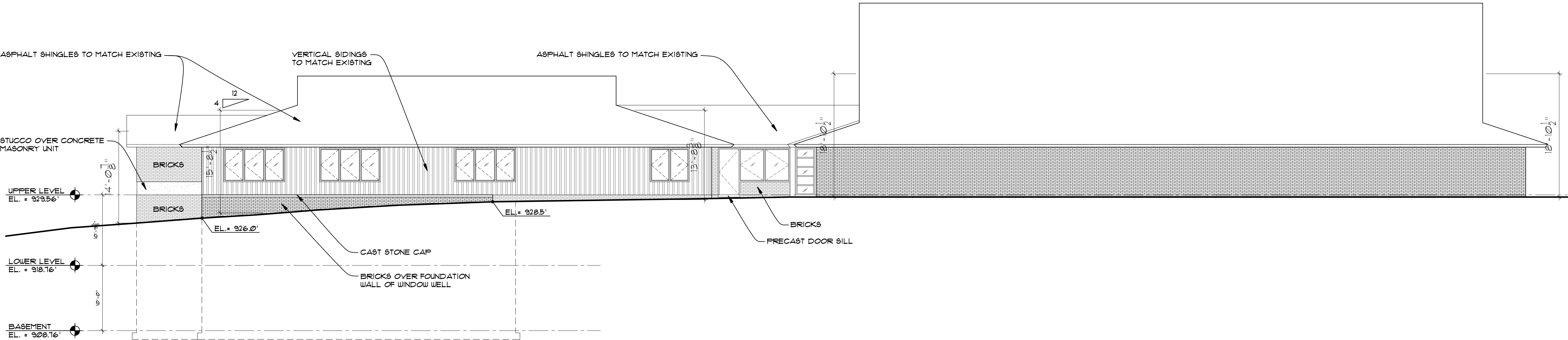
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Project Manager RHO

File Name -



1 WEST ELEVATION  
A3.1 SCALE: 1/8" = 1'