

PLANNING AND DEVELOPMENT SERVICES STAFF REPORT

For Planning Commission Meeting of September 6, 2017

**SUBJECT: DTE State Street Utility Substation Planned Project Site Plan
(2551 South State Street)
Project No. SP17-006**

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve DTE State Street Utility Substation Planned Project Site Plan.

STAFF RECOMMENDATION

Staff recommends **approval** of the planned project site plan because it complies with all applicable, local, state, and federal ordinances, standards and regulations; it will not cause a public or private nuisance; and it will not have a detrimental effect on public health, safety or welfare.

Staff further recommends **approval** of the planned project modifications because the project is consistent with the standards of approval for planned project in Chapter 55 (Zoning), Section 5:70.

LOCATION

This site is located on the east side of South State Street, north of Eisenhower Parkway in the Malletts Creek watershed.

DESCRIPTION OF PETITION

The site is currently used as a DTE substation. DTE would like to increase capacity of the station to address increasing power needs in Ann Arbor as a result of new development. DTE proposes to install two 120/40kV transformers with two control centers on raised concrete mats. New precast concrete retaining and screen walls will be installed to provide security to the transformers and help screen the facility. The source of power will be from overhead transmission cables. Access will remain on the south side of the site via an existing private drive that connects to South State Street. A sidewalk exists along the South State Street frontage.

Four landmark trees are proposed to be removed included three red cedars and one hawthorn. A total of 21.5 inches of replacement is required; 38 inches of replacement trees is proposed which will include 34 trees (15 conifers; 19 deciduous). The replacement trees will be planted on the west and south sides of the site.

A planned project site plan modification is proposed to address the height of the proposed transformer towers. The maximum height in the M1 zoning district is 35 feet. The petitioner is proposing two transformer towers which will be 55 feet in height with lightning rods that extend an additional 15 feet. The total height of the two towers with the lightning rods is proposed to be 70 feet. Two site characteristics will help mitigate the visual impact of the towers: 1) the site slopes down from South State Street which help reduce their perceived height from South State

Street and 2) existing landscaping on the site along South State Street will help to block the view of the 70-foot tall towers. Proposed landscaping along the west and south sides of the site will also help to mitigate visual impacts over time. The site currently includes two primary structures that are 30 feet tall and a communications tower that is 38 feet tall.

A below grade stormwater system is proposed. Storm water will flow through a deep bed of gravel that surrounds the concrete pads on the site to a below grade system of pipes that will outlet at the northeast corner of the site to an existing swale.

The petitioner provided postcard notices of the proposed project to satisfy citizen participation requirements.

SURROUNDING LAND USES AND ZONING

	LAND USE	ZONING
NORTH	Office	M1 (Limited Industrial)
EAST	Balas Administrative Building	M1
SOUTH	Auto Dealership	M1A
WEST	UM Athletic Complex	M1

COMPARISION CHART

	EXISTING	PROPOSED	REQUIRED/PERMITTED
Gross Lot Area	110,512 sq ft	110,512 sq ft	13,000 MIN
Height	38 ft	70 feet *	35 ft MAX
Front Setback (west)	164 ft	89 ft	15 ft MIN
Rear Setback (east)	74 ft	7.3 ft	None
Side (north) Side (south)	252 ft 15 ft	16.5 ft 12.5 ft	None
Parking	None	None	None

*requires planned project approval

HISTORY

The site has been used as a DTE substation from approximately 1955.

PLANNING BACKGROUND

The Non-Motorized Transportation Plan recommends bicycle lanes in South State Street and a sidewalk of less than 8 feet in width. Both are currently being provided.

PLANNED PROJECT MODIFICATION

The petitioner is requesting planned project approval to allow two 70-foot tall transformer towers which exceeds the maximum height in the M1 district of 35 feet. (Petitioner statements are in plain type)

Modification Request

The petitioner is requesting permission to construct a 75 foot tall building which exceeds the height limitation of the D2 zoning district by 25 feet.

Based upon compliance with the following standards, the Planning Commission may recommend approval, and City Council may approve modifications of the area, height and placement regulations of the Zoning Chapter in the form of a planned project site plan:

- 1. The lot(s) included in the planned project must meet the minimum gross lot size requirement of the zoning district in which they are located.**

N/A

The project meets the minimum gross lot size of the M1 zoning district

- 2. The proposed modifications of zoning requirements must provide one or more of the following:**

- a) Usable open space in excess of the minimum requirement for the zoning district.**

NA

- b) Building or parking setback(s) in excess of the minimum requirement for the zoning district.**

The setbacks as shown exceed the minimum requirements for the M1 zoning district

The required minimum setback along South Main Street is 15 feet. The proposed setback is 89 feet, which will be landscaped to soften the visual impact of the substation.

- c) Preservation of natural features that exceeds ordinance requirements, especially for those existing features prioritized in the land development regulations as being of highest and mid-level concern.**

The project's on-site stormwater detention area will reduce stormwater run-off.

d) Preservation of historical or architectural features.

NA

e) Solar orientation or energy conserving design.

NA

f) An arrangement of buildings which provides a public benefit, such as transit access, pedestrian orientation, or a reduced need for infrastructure or impervious surface.

NA

g) Affordable housing for lower income households.

N/A

h) Permanent open spaces of 20 percent or more in any low-density residential district.

N/A

3. The planned project shall be designed in such a manner that traffic to and from the site will not be hazardous to adjacent properties.

No regular traffic is expected to be generated from the site.

4. The proposed modifications shall be consistent with the proper development and use of adjacent land and buildings.

The proposed modifications are consistent with the proper development and use of adjacent land and buildings.

5. Required off-street parking and landscaping must be provided in accordance with the provisions of Chapters 59 and 62.

No off street parking is proposed.

6. The standards of density, allowable floor area and required usable open space for the zoning district(s) in which the project is located must be met.

NA

7. There shall be no uses within the proposed project which are not permitted uses in the zoning district(s) in which the proposed project is to be located.

The proposed use is consistent with permitted principal uses in the M1 zoning district.

SERVICE UNIT COMMENTS

Planning – The proposed project is consistent with M1 zoning requirements and master plan documents. Reasonable attempts have been made to screen the site from South State Street. Staff supports the proposed site plan and planned project application. The project is an important infrastructure improvement.

Public Services (Sanitary Capacity) – Sanitary sewer mitigation is not required of this project as proposed.

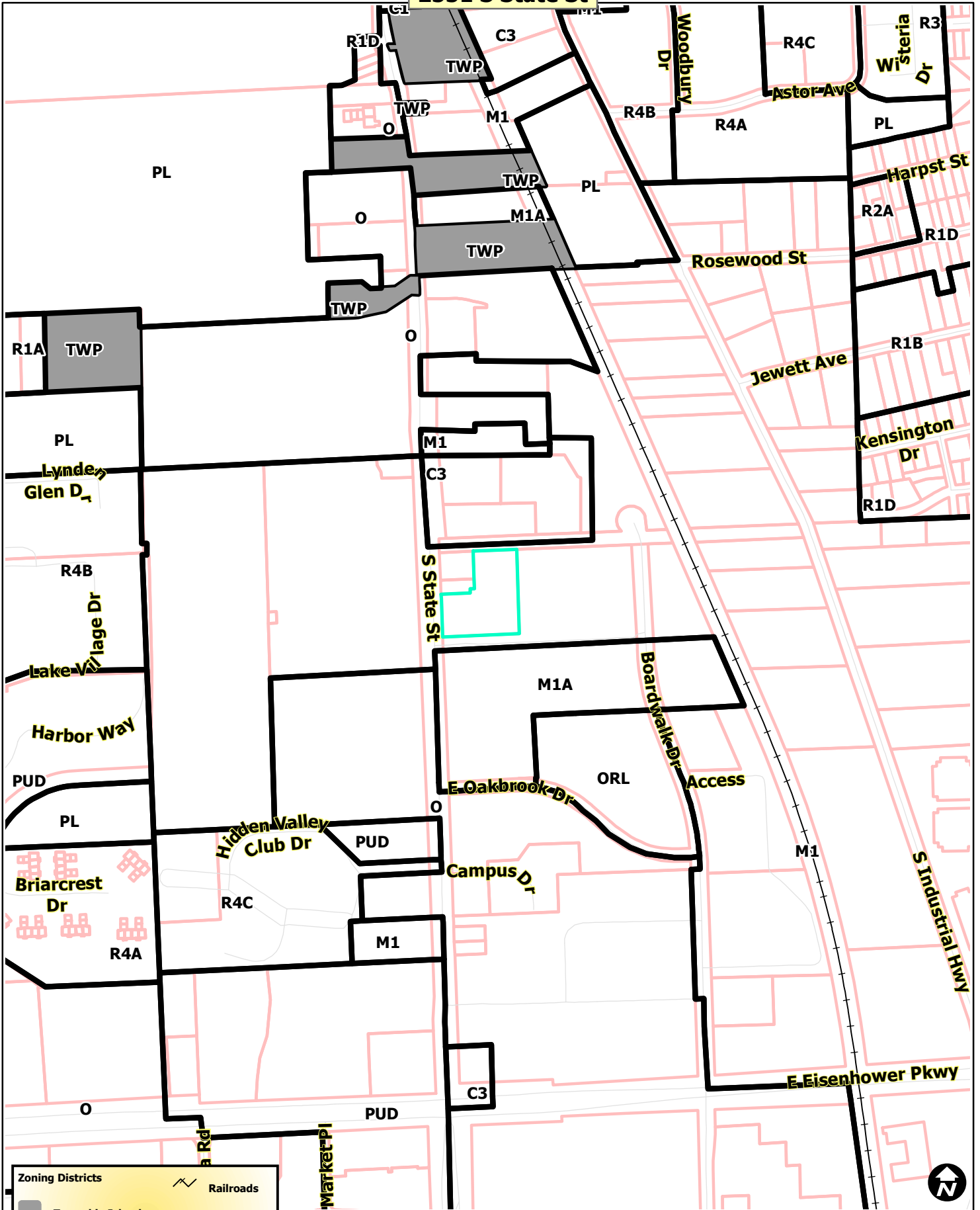
Prepared by Jeff Kahan
Reviewed by Brett Lenart
8/31/17

Attachments: Parcel and Zoning Map
Aerial Photo
Site Plan
Elevations

c: Petitioner: DTE Energy
1 Energy Plaza
Detroit, Michigan 48226-3076

Systems Planning
Project Management
Project No. SP17-006

2551 S State St



Zoning Districts	Railroads
Township Islands	Huron River
City Zoning Districts	Tax Parcels



Map date 2/1/2017
 Any aerial imagery is circa 2015 unless otherwise noted
 Terms of use: www.a2gov.org/terms



2551 S State St

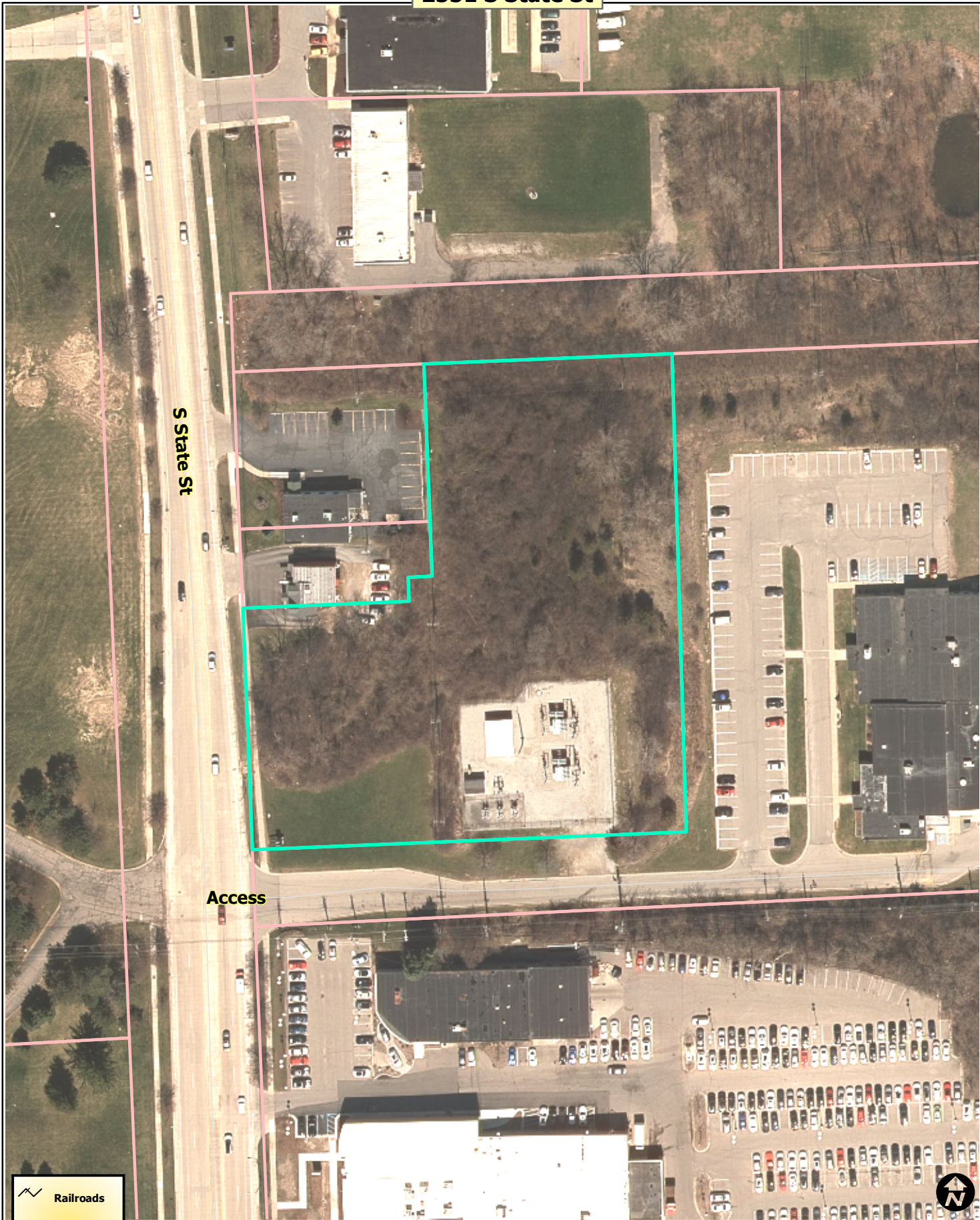





- Railroads
- Huron River
- Tax Parcels



Map date 2/1/2017
Any aerial imagery is circa 2015
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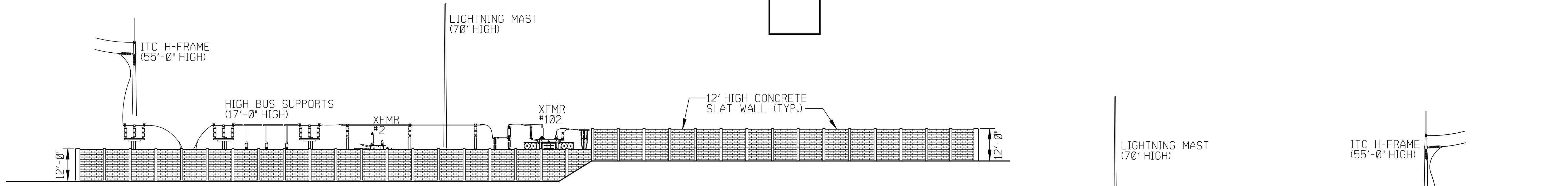
2551 S State St



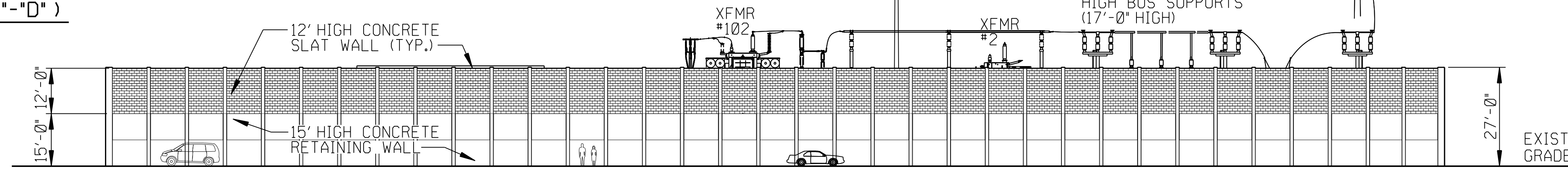
-  Railroads
-  Huron River
-  Tax Parcels



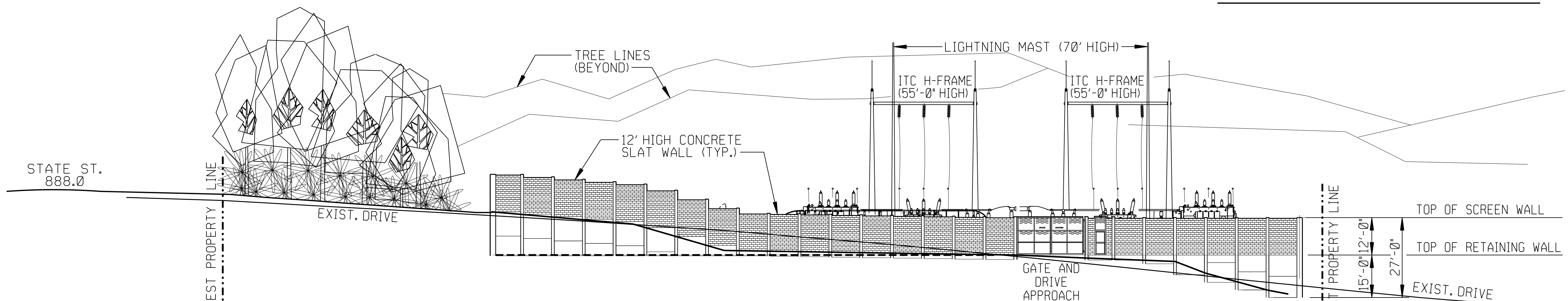
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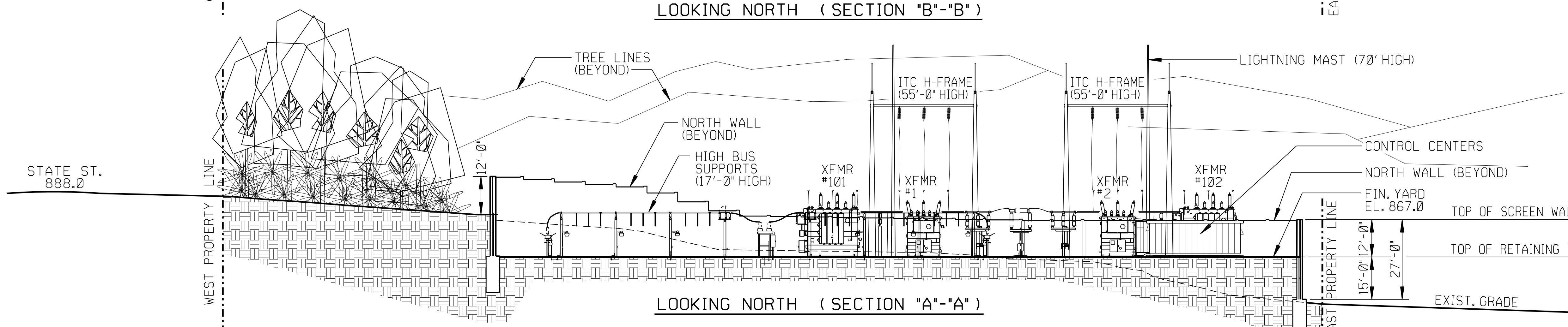
LOOKING EAST (SECTION "D"- "D")



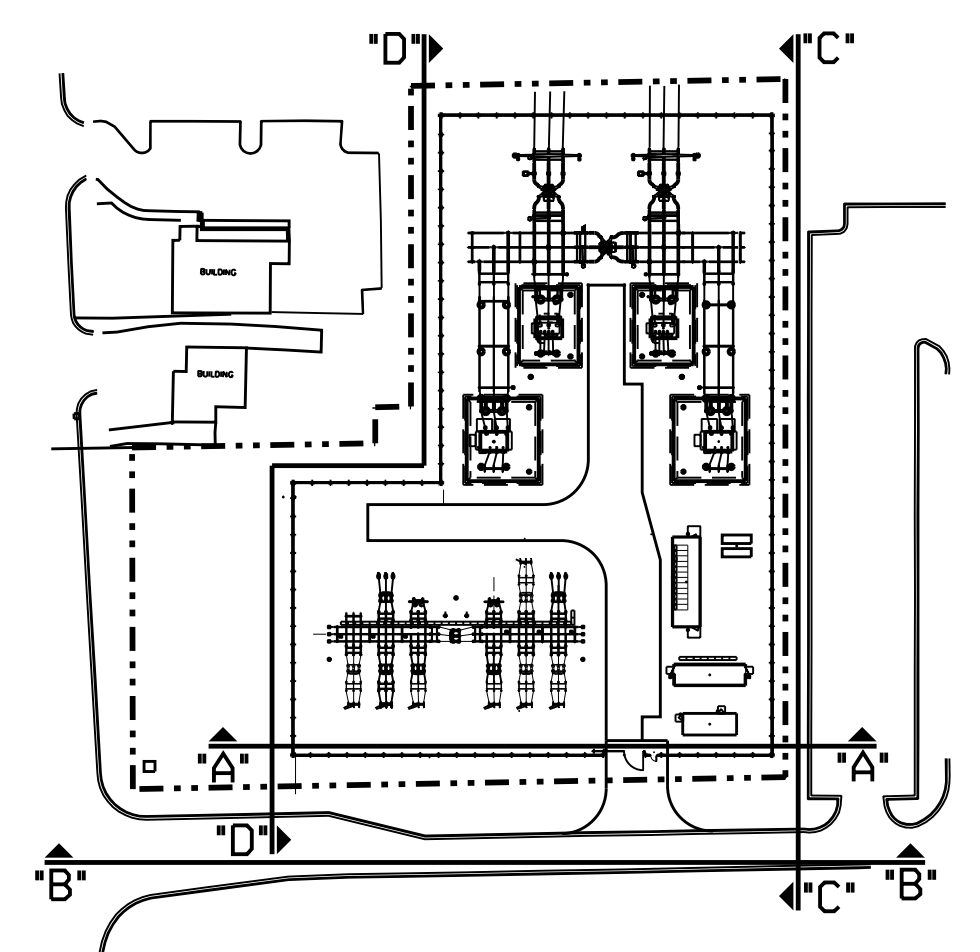
LOOKING WEST (SECTION "C"- "C")



LOOKING NORTH (SECTION "B"- "B")



LOOKING NORTH (SECTION "A"- "A")



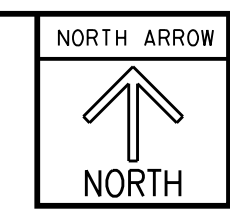
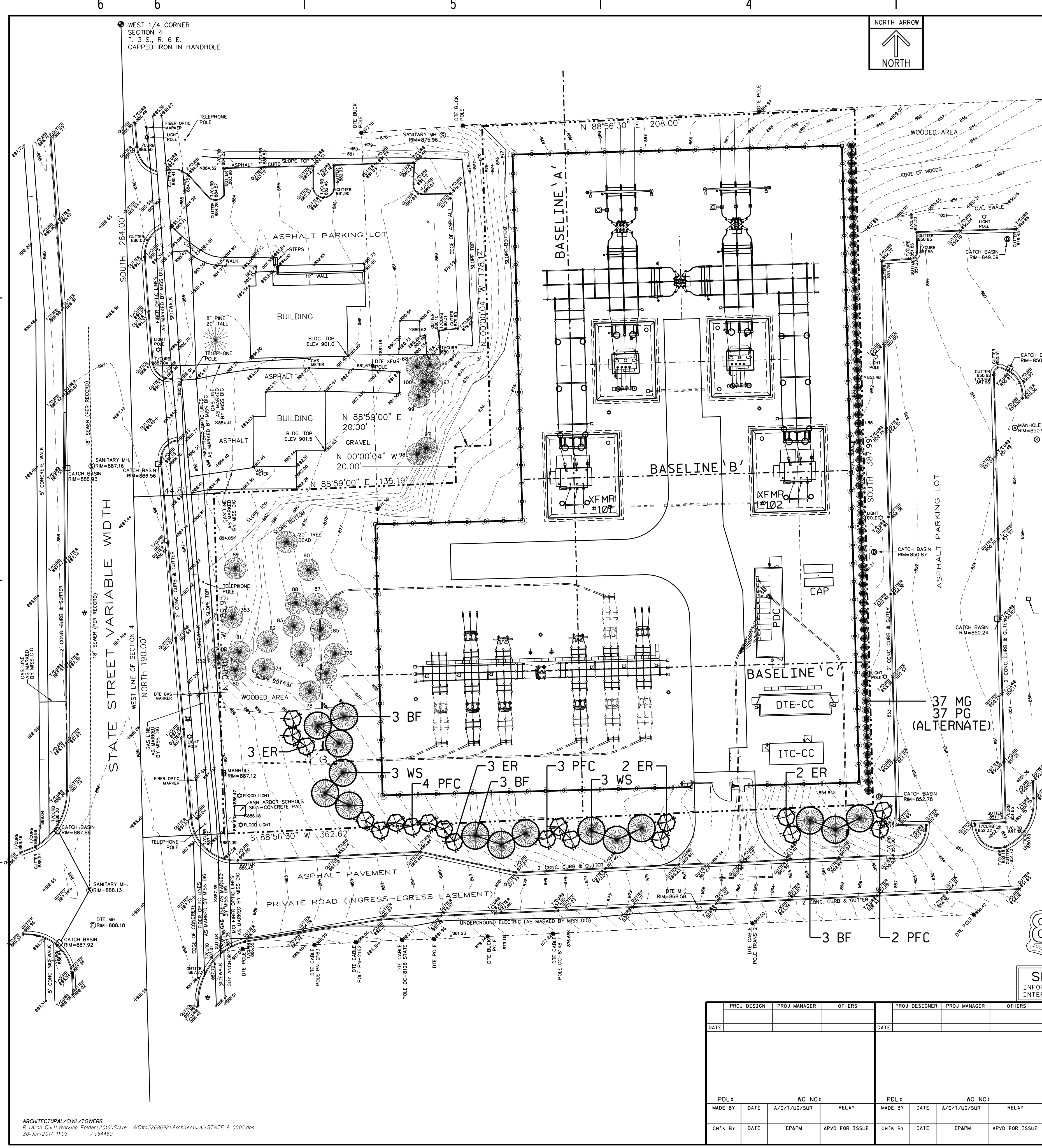
SECTION CUTS PLAN
NORTH

DATE	SUBMITTED FOR
DATE	SUBMITTED FOR
DATE	SUBMITTED FOR
DATE	SUBMITTED FOR
1-30-17	SITE PLAN REVIEW.

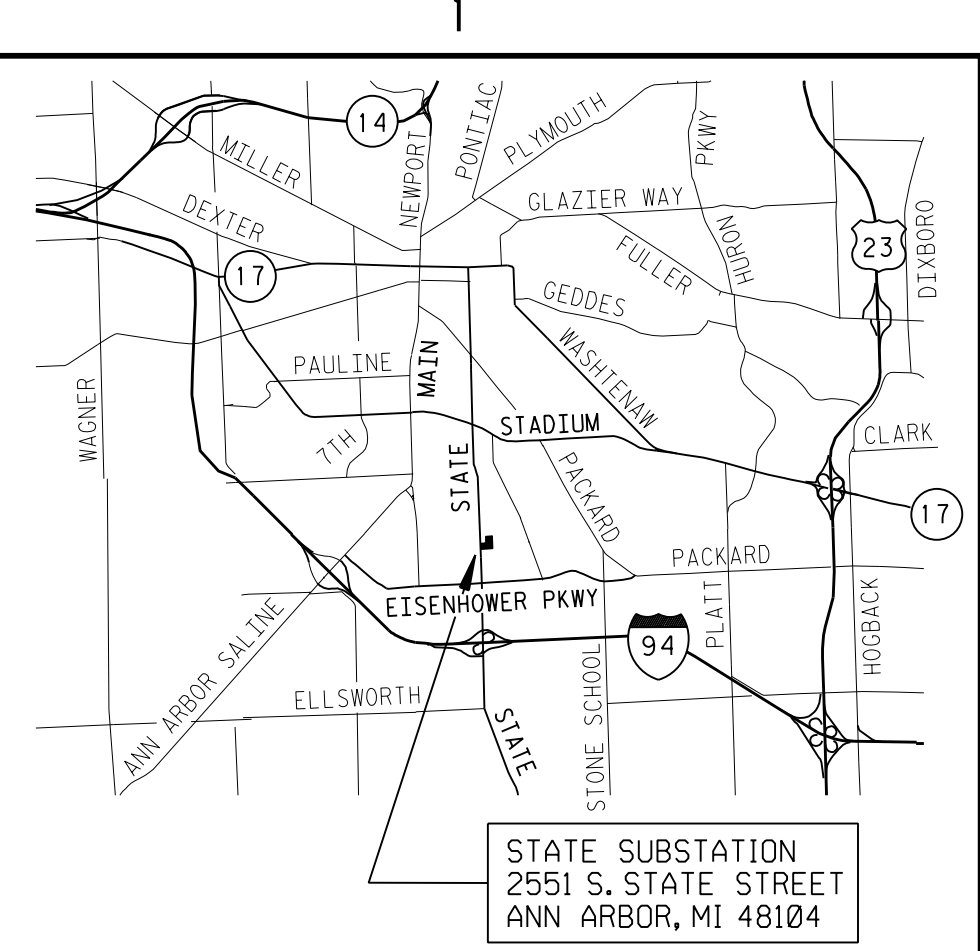
PROJ DESIGN			PROJ DESIGNER			PROJ DESIGNER			APPROVALS		
DATE	MADE BY	DATE	DATE	MADE BY	DATE	DATE	DATE	DATE	DATE	DATE	DATE

OTHER		ENGINEERING	
PROJECT MANAGER	DATE	MADE BY	DATE
		GORDON K. YEE	12-5-16
		LAYOUT BY	DATE
			1-28-17
		CHECKED BY	DATE
		ERIC MYRICK	1-30-17
		PROJECT DESIGN/ELECT	DATE
		A/C/T/UG/SUR	DATE
		MARK FAIRLESS	1-30-17
		APPROVED FOR ISSUE	DATE
		MARK FAIRLESS	1-30-17

DTE Energy		DTE Electric Company		Central Design	
TITLE <h2 style="text-align: center;">SITE CROSS SECTIONS</h2>					
LOCATION NAME STATE STATION		REGION		SCALE NO SCALE	
DRAWING NUMBER 5A708-8		WO NUMBER 45268692		PROJECT DOCUMENT LIST	



PLANT MATERIAL LIST				
KEY	QTY.	BOTANICAL NAME	COMMON NAME	REMARKS
BF	9	ABIES BALSAMEA	BALSAM FIR	7-8' HT. B & B, SPACE 15' O.C.
WS	6	PICEA GLAUCA	WHITE SPRUCE	7-8' HT. B & B, SPACE 15' O.C.
ER	10	CERCIS CANADENSIS	EASTERN REDBUD	2" CAL. B & B, SINGLE-STEM (15' O.C.)
PFC	9	MALUS 'PRAIRIFIRE'	PRAIRIFIRE FLOWERING CRAB	2" CAL. B & B, SINGLE-STEM (15' O.C.)
	34	TOTAL TREES		
MG	37	'ZEBRINUS' MISCANTHUS	MAIDENGRASS	PLANT AT 6'-0" O.C. (SEE NOTE)
PG	37	MISCANTHUS SINENSIS 'STRICTUS'	PORCUPINE GRASS	PLANT AT 6'-0" O.C. (SEE NOTE)
	74	ORNAMENTAL GRASS		



LOCATION MAP
NO SCALE

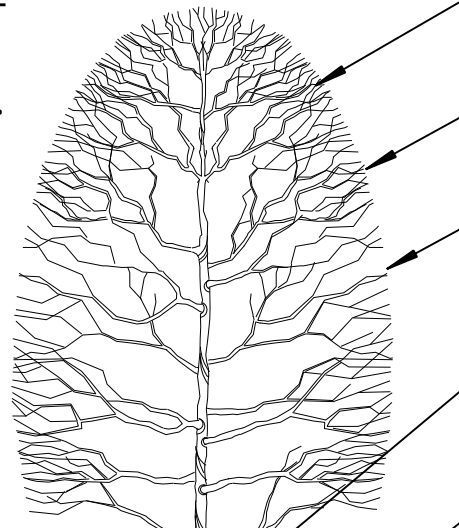
LANDMARK TREE MITIGATION:

OF THE EXISTING TREES SCHEDULED FOR REMOVAL, FOUR WERE IDENTIFIED THAT MEET THE CITY OF ANN ARBOR'S LANDMARK TREE CRITERIA; TREE #14 (JUNIPER VIRGINIANA - DBH 9), TREE #15 (JUNIPER VIRGINIA - DBH 10), TREE #29 (CRATAEGUS SP. - DBH 13.3), TREE #40 (JUNIPER VIRGINIANA - DBH 10.8). PER CHAPTER 57, SECTION 5:127 (4)(4) LANDMARK TREES AND WOODLANDS, DTE IS PROPOSING THE INSTALLATION OF 34 TREES; 15 EVERGREENS (7'-8' HT.) AND 19 DECIDUOUS TREES ONLY, THE LANDMARK TREE MITIGATION EQUALS 38", EXCEEDING CALCULATED REQUIRED LIMIT OF 21.55".

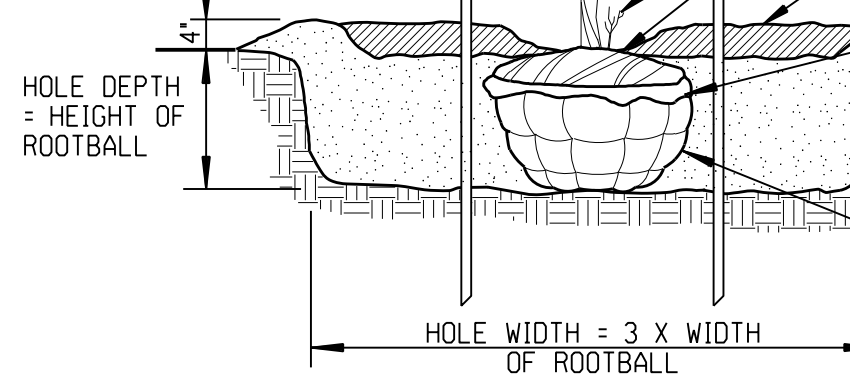
CALCULATED LANDMARK TREE MITIGATION:
50% OF ORIGINAL DBH OF EXISTING LANDMARK TREES = 1/2(13.3+9+10+10.8) = 21.55" DBH.

TREE STAKING

- STAKE WITH 2x2 HARDWOOD STAKES OR APPROVED EQUAL DRIVEN 6"-8" OUTSIDE OF ROOTBALL. EXTEND STAKES TO 18" BELOW BOTTOM OF HOLE.
- LOOSELY STAKE TREE TRUNK TO ALLOW FOR TRUNK FLEXING.
- USE 2-3" WIDE BELT-LIKE, NYLON OR PLASTIC STRAPS (2 PER TREE, ON OPPOSITE SIDES OF TREE, CONNECT FROM TREE TO STAKE HORIZONTALLY. DO NOT USE ROPE OR WIRE THROUGH A HOSE.) ATTACH STRAPS JUST BELOW FIRST BRANCH ON DECIDUOUS TREES. ATTACH STRAPS 2/3 UP ON EVERGREEN TREES.
- REMOVE ALL STAKING MATERIALS AFTER ONE YEAR.



- REMOVE SECONDARY LEADERS. DO NOT PRUNE TERMINAL LEADER OR BRANCH TIPS.
- PRUNE AWAY DEAD OR BROKEN BRANCHES ONLY. DO NOT PRUNE TO SHAPE CANOPY.
- REMOVE ALL TAGS, STRINGS, PLASTIC AND ANY OTHER NON-BIODEGRADABLE MATERIAL.
- WRAP TRUNK WITH TREE WRAP AND SECURE WITH BIODEGRADABLE MATERIAL AT TOP AND BOTTOM. REMOVE AFTER FIRST WINTER.
- PRUNE SUCKERS OFF.
- SET ROOTBALL LEVEL TO GRADE OR SLIGHTLY ABOVE GRADE (1/2") IF IN CLAY SOIL.
- 4" DEEP SHREDDED HARDWOOD BARK MULCH. LEAVE 3" CIRCLE OF BARE SOIL AROUND TRUNK OF TREE.
- 4" HIGH EARTH BERM TO FORM WATER BASIN
- FOLD DOWN ALL BURLAP FROM TOP 1/3 OF ROOTBALL. REMOVE ALL NON-BIODEGRADABLE MATERIALS. DO NOT REMOVE SOIL FROM ROOTBALL.
- BREAK UP (SCARIFY) SIDES OF PLANTING HOLE.
- CENTER ROOTBALL IN PLANTING HOLE. LEAVE BOTTOM OF PLANTING HOLE FIRM. DO NOT AMEND SOIL UNLESS PLANTING IN POOR OR SEVERELY DISTURBED SOIL OR BUILDING RUBBLE. USE WATER TO SETTLE SOIL AND REMOVE AIR POCKETS AND FIRMLY SET TREE. GENTLY TAMP IF NEEDED.



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

LANDSCAPE NOTES:

- ALL EXISTING AND PROPOSED UTILITIES SHALL BE FIELD LOCATED AND FLAGGED PRIOR TO ANY LANDSCAPE CONSTRUCTION ON-SITE.
- ALL SPECIFIED AND INSTALLED LANDSCAPE MATERIAL SHALL SATISFY THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS (LATEST EDITION) AND BE:
 - NURSERY GROWN.
 - STATE DEPARTMENT OF AGRICULTURE INSPECTED AND APPROVED.
 - NO.1 GRADE WITH STRAIGHT UNSCARED TRUNKS AND WELL DEVELOPED UNIFORM CROWNS ON ALL TREES (PARK GRADE TREES WILL NOT BE ACCEPTED).
- PROPOSED SHREDDED HARDWOOD BARK MULCH SHALL BE SEASONED FOR A MINIMUM SIX MONTHS, DARK BROWN IN COLOR, AND INSTALLED 4" DEEP IN ALL CIRCLES AROUND EACH PROPOSED TREE (INCLUDED IN THE UNIT PRICE OF EACH TREE).
- ALL LAWN AREAS ARE EXISTING. IF LAWN AREAS ARE DISTURBED DURING CONSTRUCTION, CONTRACTOR SHALL FINE GRADE, FERTILIZE, SEED (WITH APPROVED SEED MIX) AND MULCH ON A MINIMUM 3", WELL-DRAINED, SCREENED, ORGANIC TOPSOIL.
- TREES & SHRUBS SHALL BE REPLACED IF UNACCEPTABLE (DISEASED, DAMAGED OR DEAD MATERIALS) WITHIN FIRST YEAR.

PROPERTY OWNER/APPLICANT/DEVELOPER:

DTE ELECTRIC COMPANY/MARK FAIRLESS
ONE ENERGY PLAZA
DETROIT, MICHIGAN 48226-1279
(313) 235-8269 FAX (313) 235-0478

ARCHITECTURAL:

DTE ELECTRIC COMPANY/GORDON YEE
ONE ENERGY PLAZA, 550 S.B.
DETROIT, MICHIGAN 48226-1279
(313) 235-9214 FAX (313) 235-0478

ADDRESS:

STATE SUBSTATION
2551 S. STATE STREET
ANN ARBOR, MICHIGAN 48104



SHARED DRAWING
INFORMATION ON DRAWING SHARED WITH INTERNATIONAL TRANSMISSION COMPANY

USE DIMENSIONS ONLY
DO NOT SCALE

REV	NOTE TO FIELD	DATE	SUBMITTED FOR
-	FIELD IS NOT AUTHORIZED TO CHANGE OR MODIFY THIS DESIGN WITHOUT FIRST CONTACTING THE ENGINEER.		

ARCHITECTURAL DESIGNER	CIVIL ENGINEER	DATE	SUBMITTED FOR
GORDON K YEE (313)235-9214	ERIC MYRICK (313)235-6728	1-30-17	SITE PLAN REVIEW

PROJ DESIGN				PROJ DESIGNER				PROJ DESIGNER				APPROVALS			
DATE	PROJ MANAGER	OTHERS	DATE	PROJ MANAGER	OTHERS	DATE	PROJ MANAGER	OTHERS	DATE	PROJ MANAGER	OTHERS	DATE	PROJ MANAGER	OTHERS	

DTE Energy		DTE Electric Company		Central Design	
<p>LANDSCAPE PLAN NATURAL FEATURES MITIGATION</p>					
LOCATION NAME		REGION		SCALE	
STATE STATION				1" = 30'-0"	
DRAWING NUMBER		NO NUMBER		PROJECT DOCUMENT LIST	
5A708-5		45268692			

