

EXISTING LEGEND

	FIRE HYDRANT		WATER MAIN
	GATE VALVE IN BOX		STORM SEWER
	GATE VALVE IN WELL		SANITARY SEWER
	STOP BOX		GAS MAIN
	WATER VAULT		ELECTRICAL OVER HEAD
	WELL		ELECTRICAL UNDER GROUND
	CATCH BASIN (SQ)		ELECTRICAL DUCT BANK
	CATCH BASIN (RD)		TELEPHONE OVER HEAD
	STORM MANHOLE		TELEPHONE UNDER GROUND
	NON-CURB CATCH BASIN (SQ)		TELEPHONE DUCT BANK
	END SECTION		CABLE TV OVER HEAD
	SANITARY MANHOLE		CABLE TV UNDER GROUND
	CLEAN-OUT		FIBER OPTIC
	POST		FIBER OPTIC DUCT BANK
	PEDESTRIAN SIGNAL		BOUNDARY
	SIGN		BUILDING
	HAND HOLE		CENTERLINE OF DITCH
	ORNAMENTAL LIGHT		CENTERLINE/CROWN OF ROAD
	FLOOD LIGHT		CONTOUR MAJOR
	UNKNOWN MANHOLE		CONTOUR MINOR
	TELEPHONE MANHOLE		EDGE OF WATER
	TELEPHONE RISER		FLOODPLAIN
	GAS VALVE		WETLANDS
	GAS VENT		FENCE
	GAS BOX		GRAVEL
	ELECTRICAL RISER		GUARDRAIL
	TRANSFORMER		STONE WALL
	UTILITY POLE		R.O.W.
	LAMP POLE		TREELINE
	GUY ANCHOR		WETLAND
	GUY POLE		EDGE OF BRUSH
	MONITORING WELL		HEDGE
	MAILBOX		
	SOIL BORING		
	TRAVERSE POINT		
	BENCH MARK		
	IRON PIPE		
	MON BOX		
	SHRUB (DECIDUOUS)		
	STUMP		
	TREE (DECIDUOUS)		
	TREE (CONIFEROUS)		

PROPOSED LEGEND

	HYDRANT (PLAN)		WATER MAIN
	WATER GATE WELL		STORM SEWER
	REDUCER		SANITARY SEWER
	WATER GATE VALVE		FIBER OPTIC
	WATER STOP BOX		ELECTRICAL
	WATER VAULT		CENTERLINE OF DITCH
	INLET		CENTERLINE OF ROAD
	DOUBLE INLET		FENCE
	INLET JUNCTION CHAMBER		GRAVEL
	ROUND CATCH BASIN		SILT FENCE
	STORM MANHOLE		PROTECTIVE FENCE
	DRAIN ARROW		GUARDRAIL
	FLARED END SECTION		LOT/UNIT
	SANITARY MANHOLE		CURB
	CLEAN-OUT		TEMPORARY GRADING PERMIT
	BARREL		CONTOUR MAJOR
	SIGN		CONTOUR MINOR
	PUSH BUTTON		WATER EASEMENT
	HAND HOLE		STORM EASEMENT
			SANITARY EASEMENT
			R.O.W.
			LIMITS OF CONSTRUCTION
			LIMIT OF GRADING
			STONE WALL
	TREE (DECIDUOUS)		DETECTABLE WARNING
	TREE (CONIFEROUS)		ASPHALT
			CONCRETE
			SIDEWALK



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SWIFT RUN (WHEELER) SERVICE CENTER

LEGEND

SCALE : N/A
DRAWING No. 2014031-2

SHEET No.

CONSTRUCTION NOTES:

1. DRIVEWAYS AND ENTRANCES TO BUILDINGS, REAL PROPERTY, AND THE LIKE SHALL NOT BE BLOCKED EXCEPT FOR SHORT DURATIONS AND ONLY WHEN APPROVED BY THE ENGINEER. VEHICULAR AND PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL NECESSARY DRIVEWAY CLOSURES WITH THE PROPERTY OWNER(S) AND RESIDENT(S) IN THE AREAS OF CONSTRUCTION.
2. THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND SERVICE LEADS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. LOCATION AND DEPTH OF UTILITIES AS DEPICTED ON THE PLANS IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE AHEAD AND ADJUST DEPTH OF CONFLICT UTILITIES ACCORDINGLY. ANY DAMAGE TO UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY TO AVOID AND/OR REPAIR AS NECESSARY.
4. THE CONTRACTOR IS TO TAKE SPECIAL CARE TO PROTECT THE EXISTING WATER MAIN AND BE RESPONSIBLE FOR MAINTAINING CONSISTENT WATER SERVICE.
5. DURING NON-WORKING HOURS NO TRENCH SHALL REMAIN OPEN; ANY OPEN TRENCH SHALL BE PROPERLY SECURED WITH PROTECTIVE FENCING. THIS WORK SHALL BE INCLUDED IN THE ITEM OF WORK "GENERAL CONDITIONS".
6. POSTAL DELIVERY AND REFUSE PICKUP SERVICE SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
7. WHERE STREET CURBS ARE UNDERMINED DUE TO CONSTRUCTION ACTIVITIES, THEY SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS MAINTENANCE OF THE TEMPORARY ROAD SURFACE AND SOIL EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL THE FULL COMPLETION OF THE PROJECT. THIS WORK SHALL BE INCLUDED IN THE ITEM OF WORK "GENERAL CONDITIONS".
9. ALL CURB, SIDEWALK, DRIVEWAY APPROACH REMOVALS SHALL BE APPROVED BY ENGINEER BEFORE THE WORK IS DONE.
10. SAWED SEWER PIPE CONNECTIONS SHALL BE COUPLED WITH A FERNCO FLEXIBLE COUPLING AND A STAINLESS STEEL SHEAR RING.
11. THE LOCATION OF MATERIAL STOCK PILES AND ON-SITE STAGING AREAS TO BE APPROVED BY THE ENGINEER.
12. PAYMENT FOR DRAINAGE STRUCTURE SUMPS, WHERE SPECIFIED, SHALL BE INCLUDED IN THE PAYMENT FOR THE VARIOUS DRAINAGE STRUCTURE SIZES AND OR TYPES.
13. WHERE SEWER PIPES OF DIFFERENT SIZES OR MATERIALS ARE JOINED, FERNCO FLEXIBLE COUPLINGS WITH STAINLESS STEEL SHEAR RING SHALL BE USED. THE CONTRACTOR'S PURCHASE PRICE FOR THESE DEVICES, INCLUDING SHIPPING, SHALL BE PAID AS AN EXTRA. PRIOR TO PAYMENT FOR THIS ITEM, THE CONTRACTOR SHALL SUBMIT RECEIPTS FOR THE ENGINEER'S REVIEW AND APPROVAL. ALL OTHER COSTS ASSOCIATED WITH THE INSTALLATION OF THESE DEVICES SHALL BE INCLUDED IN THE PAYMENT FOR THE SEWER.
14. WHERE SEWER AND WATER MAIN ARE TO BE REMOVED & REPLACED OR ADDED, ALL PIPE SHALL BE INSTALLED USING TRENCH DETAIL DETAILED IN THE SPECIFICATIONS OR SHOWN ON PLANS. BACKFILL FOR SEWER AND WATER CONSTRUCTION SHALL BE MDOT GRANULAR MATERIAL, CLASS II, MODIFIED.
15. EXISTING STREET NAME, GUIDE, AND REGULATORY SIGNS, AND MAILBOXES WHICH CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED PRIOR TO CONSTRUCTION, STORED IN A MANNER WHICH WILL PREVENT DAMAGE, AND RE-SET IN LOCATIONS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN "MACHINE GRADING, MODIFIED".
16. IN AREAS WHERE EDGE DRAIN CANNOT BE INSTALLED IN ACCORDANCE WITH CITY OF ANNE ARBOR DETAIL SD--TD-11, THE EDGE DRAIN SHALL BE INSTALLED AT THE DEPTH AS INDICATED ON THE PLANS, OR AS DIRECTED BY ENGINEER. IN NO CASE SHALL THE EDGE DRAIN BE INSTALLED AT A GRADE LESS THAN 0.50% OR AT A DEPTH OF LESS THAN 2' BELOW TOP OF PROPOSED PAVEMENT.

SOIL EROSION & SEDIMENT CONTROL NOTES:

NOTIFY PITTSFIELD CHARTER TOWNSHIP DEPARTMENT OF UTILITIES & MUNICIPAL SERVICES PRIOR TO ANY EARTHWORK ACTIVITIES, 6201 WEST MICHIGAN AVENUE, ANN ARBOR, MI 48108 PHONE: (734) 822-3130 FAX: (734) 944-1103 WEBSITE: WWW.PITTSFIELD-MI.GOV EMAIL: PLANNING@PITTSFIELD-MI.GOV

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE SESC PLANS AT ALL TIMES DURING CONSTRUCTION ON THIS PROJECT. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS, SHALL BE COMPLIED WITH AS REQUIRED OR DIRECTED BY THE OWNER, PROJECT ENGINEER, OR PITTSFIELD CHARTER TOWNSHIP.
2. ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF PITTSFIELD CHARTER TOWNSHIP AND THE LAWS OF THE STATE OF MICHIGAN.
3. A NPDES CONSTRUCTION ACTIVITY PERMIT IS REQUIRED FOR ALL SITES GREATER THAN FIVE (5) ACRES.
4. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE OWNER/PROJECT ENGINEER/TOWNSHIP TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY BY THE ONSITE RESPONSIBLE INDIVIDUAL.
5. EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS.
6. ALL MUD/DIRT TRACKED ONTO ROADS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
7. RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE COMPLETED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
8. 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 OPERATIONS.
9. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
10. PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR CHLORIDE AS REQUIRED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME UPON AUTHORIZED COMPLETION OF PROJECT. COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK, HOME BUILDING, ROAD WORK, AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOLS ARE STABILIZED.
12. THE CONTRACTOR SHALL NOT GRADE IN EXISTING WETLAND OR CONSERVATION AREAS TO BE PROTECTED. SILT FENCE SHALL BE INSTALLED AND MAINTAINED ADJACENT TO EXISTING WETLAND AND CONSERVATION AREAS TO PREVENT GRADING, EROSION, AND SEDIMENTATION INTO THEM.
13. TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

SEQUENCE OF CONSTRUCTION

1. INSTALL SEDIMENT FENCE AND TREE PROTECTION FENCING PRIOR TO ANY GRADING OPERATION.
2. INSTALL MUD TRACKING PAD.
3. CONSTRUCT TEMPORARY SEDIMENT/DETENTION BASIN.
4. PLACE TOPSOIL, FERTILIZER, SEED, AND MULCH OVER THE ENTIRE DETENTION BASIN AREA.
5. ROUGH GRADE SITE, STOCKPILE TOPSOIL, AND BEGIN BUILDING CONSTRUCTION.
6. INSTALL STORM DRAINAGE SYSTEM, INCLUDING RIPRAP AND PARKING LOT INLET FILTERS AND DETENTION BASIN STANDPIPE.
7. MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED.
8. INSTALL SANITARY SEWER AND WATER SYSTEMS.
9. BRING PAVEMENT AREAS TO SUB-BASE GRADE, PLACE SUB-BASE AND BITUMINOUS PAVEMENT.
10. INSTALL FRANCHISED UTILITIES.
11. FINISH GRADE, REDISTRIBUTE TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS.
12. REMOVE ANY ACCUMULATED SEDIMENT WITHIN THE DETENTION BASIN AND REPLACE CLEAN WASHED STONE AROUND STANDPIPE.
13. COMPLETE CONSTRUCTION OF SITE.
14. ENSURE ALL SOIL IS STABILIZED. REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES.

SEEDING/SOD

1. SEED OR SOD IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. ALL AREAS OF DISTURBED EARTH THAT ARE NOT TO BE PAVED OR SODDED SHALL HAVE 4 INCHES OF TOPSOIL, SEED, FERTILIZER AND MULCH.
3. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW (PREFERABLY WHEAT) OR HAY SPREAD. SPREAD UNIFORMLY AT THE RATE OF 1-1/2 TO 2 TONS OR 100 POUNDS (2 TO 3 BALES) PER 1,000 SQUARE FOOT. THIS MULCH SHOULD BE ANCHORED WITH A DISC-TYPE MULCH-ANCHORING TOOL.
4. ANY DISTURBED AREA NOT PAVED, SEEDED OR MULCHED, SODDED OR BUILT UPON ON OR AFTER NOVEMBER 15TH, IS TO BE MULCHED IN THE MANNER AS SPECIFIED ABOVE, IN ORDER TO PROVIDE SOIL EROSION PROTECTION DURING THE WINTER AND EARLY SPRING.
5. ALL EROSION AND SEDIMENTATION CONTROL PREVENTION PROCEDURES AND STRUCTURES ARE TO COMPLY WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL OF THE WASHTENAW COUNTY SOIL CONSERVATION DISTRICT.

CATCH BASIN/MANHOLE PROTECTION

PROTECT STORM SEWER CATCH BASINS WITH THE FOLLOWING PRODUCT OR APPROVED EQUAL:

- REGULAR FLOW SILTSACK (FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF).
- HI-FLOW SILTSACK (FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF).
- OIL-ABSORBANT SILTSACK (FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS).

ROADS

1. DURING CONSTRUCTION, ALL ROADS SHALL BE PROTECTED FROM UNVEGETATED AREAS WASHING ONTO ROAD SURFACES BY PLACEMENT OF SILT FENCE BEHIND CURB OR A 10-FOOT WIDE STRAW MULCH BANK BEHIND THE CURB OR OTHER APPROVED METHOD AND/OR AS SHOWN ON THE PLANS.
2. DURING CONSTRUCTION OF ANY PORTION OF THE PROJECT, ROADS SHALL BE MAINTAINED FREE OF DIRT, SILT, AND CONSTRUCTION DEBRIS.

CONTACT INFORMATION

PUBLIC UTILITIES	OWNER	CONTACT
WATER		
SANITARY		
STORM		(734) 794-6350
FORESTRY	CITY OF ANN ARBOR PUBLIC WORKS W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	
SIGNS SIGNALS STREET LIGHTS		(734) 794-6361
PITTSFIELD TOWNSHIP UTILITIES		(734) 794-6361
PITTSFIELD TOWNSHIP UTILITIES	PITTSFIELD CHARTER TOWNSHIP 6201 W. MICHIGAN AVE. ANN ARBOR, MICHIGAN 48108	(734) 822-3105
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 3150 E. MICHIGAN AVE. YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	CLAY COMBEE (734) 397-4112
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	(734) 996-2135
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016



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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING	SCALE : N/A
SWIFT RUN (WHEELER) SERVICE CENTER	

[illegible]DRAWING No.
2014031-3

SHEET No.

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MAX POWER

CS6X-310 | 315 | 320P

High quality and reliability in all Canadian Solar modules is ensured by 14 years' experience in module manufacturing, well-engineered module design, stringent BOM quality testing, an automated manufacturing process and 100% EL testing.

25 years

insurance-backed warranty non-cancelable, immediate warranty insurance linear power output warranty

10 years

product warranty on materials and workmanship

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2008 / Quality management system
ISO/TS 16949:2009 / The automotive industry quality management system
ISO 14001:2004 / Standards for environmental management system
OHSAS 18001:2007 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730: VDE / MCS / CE / SIL / CEC AU / CQC / INMETRO
UL 1703 / IEC 61215 performance: CEC listed (US)
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC 60068-2-68: SGS
PV CYCLE (EU) / UNI 9177 Reaction to Fire: Class 1

As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

CANADIAN SOLAR INC.

is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading manufacturer of solar modules and PV project developer with about 10 GW of premium quality modules deployed around the world since 2001, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

KEY FEATURES

Excellent module efficiency up to 16.68%

Outstanding low irradiance performance: 96.0%

Positive power tolerance up to 5 W

High PTC rating up to 91.97%

IP67 junction box for long-term weather endurance

Heavy snow load up to 5400 Pa wind load up to 2400 Pa

Salt mist, ammonia and blowing sand resistance, apply to seaside, farm and desert environments

CANADIAN SOLAR INC.

545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com, support@canadiansolar.com

TYPICAL SOLAR PANEL

MODULE / ENGINEERING DRAWING (mm)

Rear View

Frame Cross Section A-A

Mounting Hole

CS6X-310P / I-V CURVES

ELECTRICAL DATA / STC*

Electrical Data CS6X	310P	315P	320P
Nominal Max. Power (Pmax)	310 W	315 W	320 W
Opt. Operating Voltage (Vmp)	36.4 V	36.6 V	36.8 V
Opt. Operating Current (Imp)	8.52 A	8.61 A	8.69 A
Open Circuit Voltage (Voc)	44.9 V	45.1 V	45.3 V
Short Circuit Current (Isc)	9.08 A	9.18 A	9.26 A
Module Efficiency	16.16%	16.42%	16.68%
Operating Temperature	-40°C ~ +85°C		
Max. System Voltage	1000 V (IEC) or 1000 V (UL)		
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC 61730)		
Max. Series Fuse Rating	15 A		
Application Classification	Class A		
Power Tolerance	0 ~ + 5 W		

MODULE / MECHANICAL DATA

Specification	Data
Cell Type	Poly-crystalline, 6 inch
Cell Arrangement	72 (6×12)
Dimensions	1954×982×40 mm (76.9×38.7×1.57 in)
Weight	22 kg (48.5 lbs)
Front Cover	3.2 mm tempered glass
Frame Material	Anodized aluminium alloy
J-Box	IP67, 3 diodes
Cable	4 mm² (IEC) or 4 mm² & 12 AWG 1000V (UL), 1150 mm (45.3 in)
Connectors	Friends PV2a (IEC), Friends PV2b (IEC / UL)
Standard	26 pieces, 620 kg (1366.9 lbs)
Packaging	(quantity & weight per pallet)
Module Pieces per Container	624 pieces (40' HQ)

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.41% / °C
Temperature Coefficient (Voc)	-0.31% / °C
Temperature Coefficient (Isc)	0.053% / °C
Nominal Operating Cell Temperature	45±2°C

PERFORMANCE AT LOW IRRADIANCE

Industry leading performance at low irradiance, average 96.0% relative efficiency from an irradiance of 1000 W/m² to 200 W/m² (AM 1.5, 25°C).

The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, research and product enhancement, Canadian Solar Inc. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Caution: For professional use only. The installation and handling of PV modules requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using the modules.

CANADIAN SOLAR INC.

August 2015. All rights reserved, PV Module Product Datasheet V5.3-EN

STEP CHAIN LINK FENCE SD-L-2

HYDRELIO CONFIGURATION

Side view

Tile 12"

Top view

Single row Eco

EXAMPLE OF FLOATING SOLAR ARRAYS

HYDRELIO®: FLOATING PV SYSTEM

EXAMPLE OF GROUND COVER UNDER SOLAR ARRAYS

811 Know what's below. Call before you dig.

02 COVER SHEET -- TAX PARCEL ID TABLE

01 DTE SOLAR -- PITTSFIELD TWP COMMENTS

09-24-2021

02-11-2020

CEC

CEC

DATE

DRAWN

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SWIFT RUN (WHEELER) SERVICE CENTER

2014031-4

SCALE : N/A

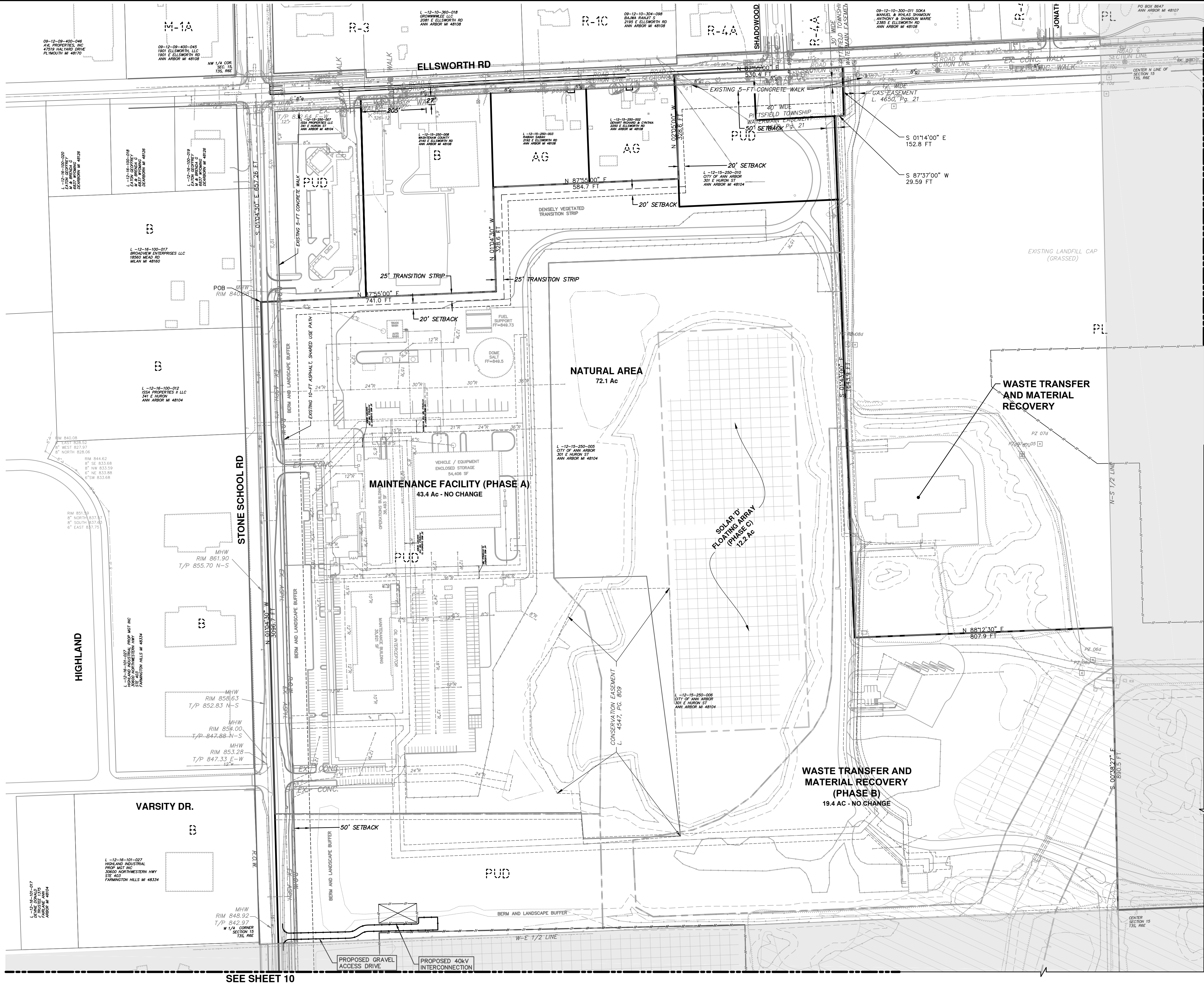
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4 OF 19

DETAIL SHEET

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SEE SHEET 8

SEE SHEET 10

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
SWIFT RUN (WHEELER) SERVICE CENTER

SCALE PLAN: 1" = 150'

DRAWING NO.
2014031-7

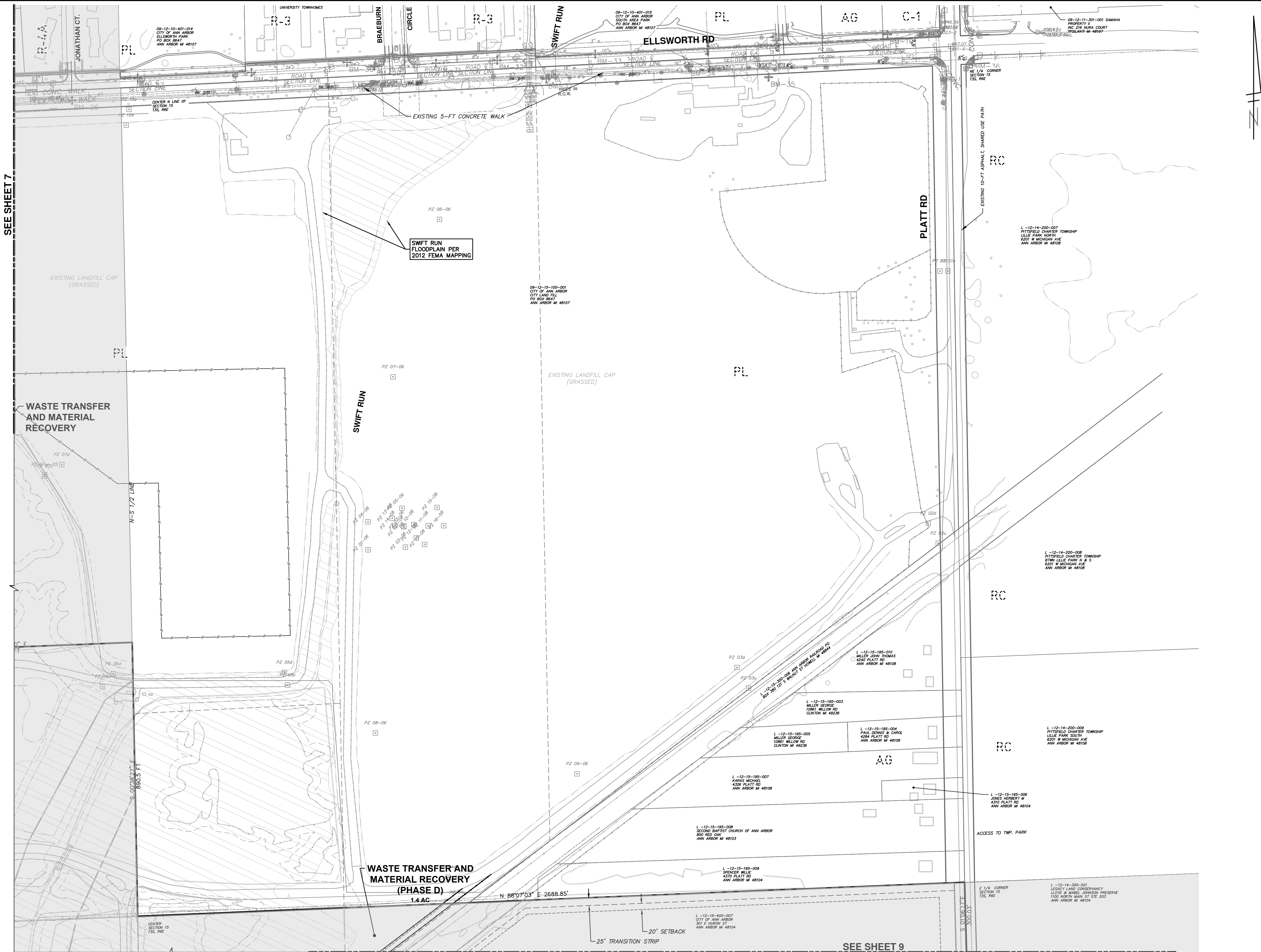


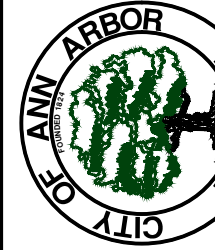
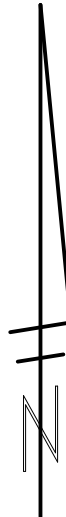
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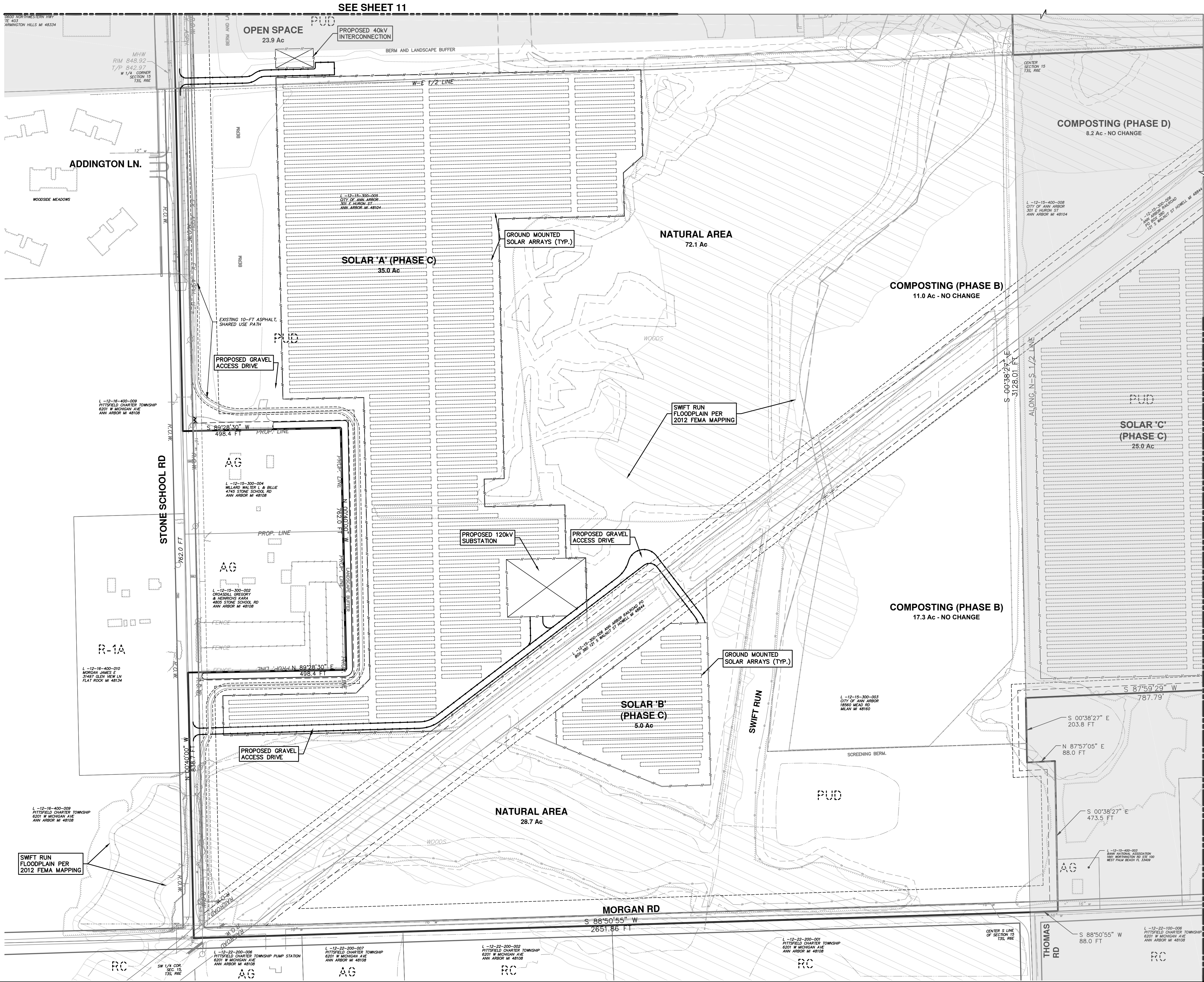
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01	02-11-2020	DTE SOLAR - PITTSFIELD TWP COMMENTS	CEC	CEC		





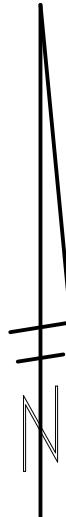
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01	DTE SOLAR -- PITTSFIELD TWP COMMENTS	02-11-2020	CEC	CEC
REV	DESCRIPTION	DATE	DRAWN	CHECKED

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NOTES:
THE 40 kV INTERCONNECTION AND 120 kV SUBSTATION ARE SHOWN AS CONCEPTUAL. THE FINAL CONNECTION OF THE SOLAR ARRAYS TO THE EXISTING ELECTRICAL GRID IS CONTINGENT UPON THE CAPACITY OF THOSE FACILITIES.
DTE IS CURRENTLY STUDYING THE SYSTEM CAPACITIES TO DETERMINE WHICH POINT OF GRID INTERCONNECTION WILL BE USED FOR THE FINAL SITE PLAN.

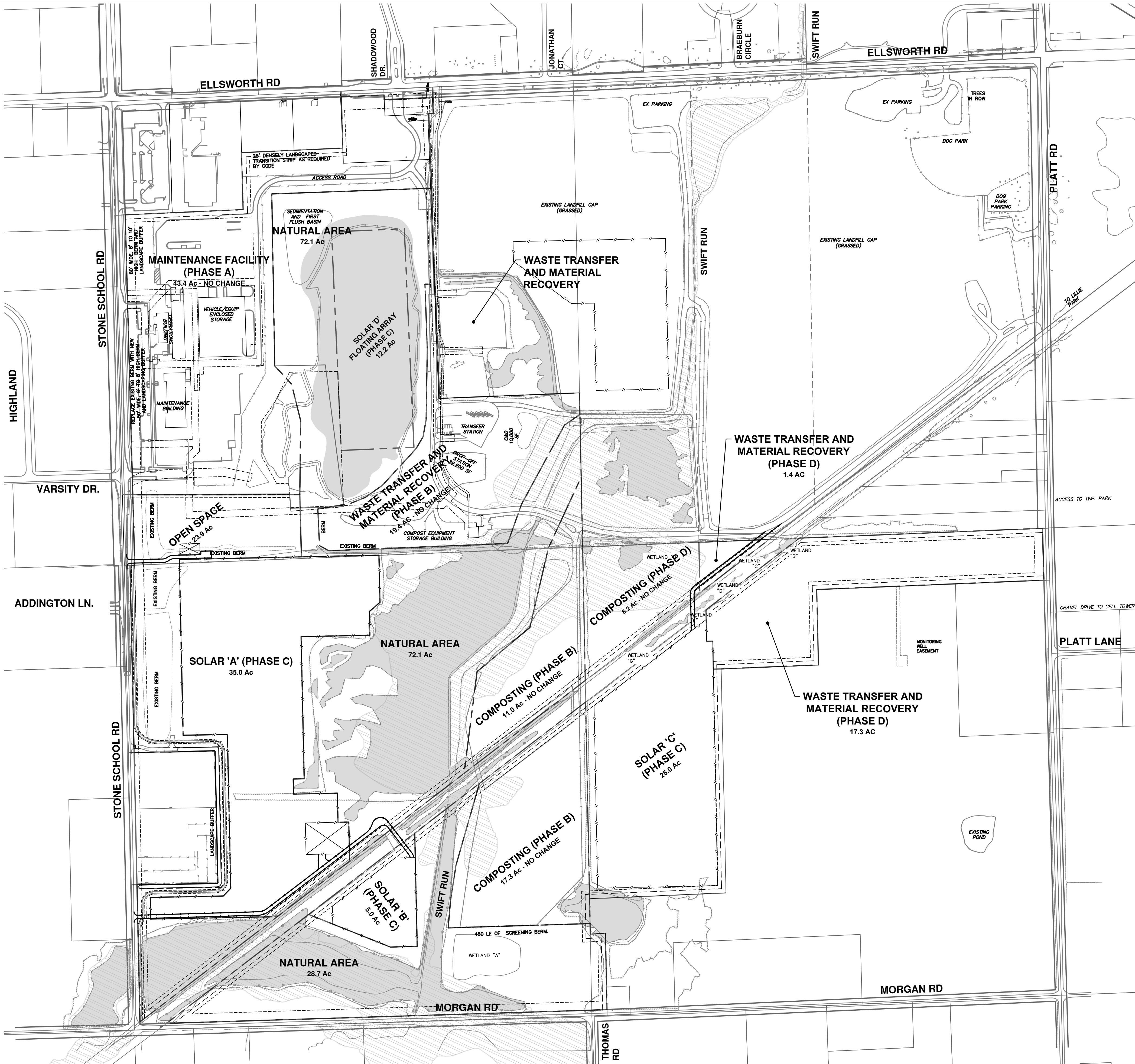




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NATURAL FEATURES NOTES

1. NATURAL FEATURE INFORMATION SUPPLIED BY PITTSFIELD TOWNSHIP DEVELOPMENT CD NOVEMBER 2003 AND CITY OF ANN ARBOR SEPTEMBER 2001.
2. NATURAL FEATURE INFORMATION SUPPLEMENTED BY DISCUSSIONS AND SITE WALK-THROUGHS WITH DAVE BORNEMAN (CITY OF ANN ARBOR PARKS), DAN COZART (CITY OF ANN ARBOR COMPOST SITE MANAGER), TILTON & ASSOCIATES WETLAND SPECIALISTS, MARK SPENCER (PITTSFIELD TOWNSHIP) DURING NOVEMBER AND DECEMBER 2003 AND JANUARY THROUGH MARCH 2004.
3. WETLAND DELINEATION OVERVIEW SUPPLIED BY DR. EUGENE JAWORSKI, J & L CONSULTING, MARCH 23, 2004. FULL WETLAND DELINEATION STUDY TO BE COMPLETED AND PROVIDED WITH THE INDIVIDUAL AREA SITE PLANS.
4. WETLANDS IDENTIFIED IN THE COMPOST AREA WILL BE MITIGATED WITH TOWNSHIP AND MIEGLE COORDINATION.
5. A 25' BUFFER WILL BE RETAINED AROUND ALL REMAINING WETLANDS.
6. TREE SURVEY SUPPLIED BY MCI IN NOVEMBER 2004.

DESCRIPTION OF SITE NATURAL FEATURES (2020)

GRASSLAND

THE AREAS IDENTIFIED AS "SOLAR 'A'" AND "SOLAR 'B'" ARE LOCATED ON TWO MAINTAINED GRASSLAND AREAS SEPARATED BY A FORMER RAILROAD. "SOLAR 'A'" IS LOCATED ON AN APPROXIMATELY 50-ACRE FIELD AND "SOLAR 'B'" IS LOCATED ON AN APPROXIMATELY 7-ACRE FIELD. THE TWO FIELDS SHARE SIMILAR VEGETATION AND APPEAR TO BE MAINTAINED WITH MOWING. THE GRASS SPECIES IDENTIFIED INCLUDES COMMON SPECIES GROWN FOR HAY PRODUCTION SUCH AS SMOOTH BROME (BROMUS INERMIS) AND TIMOTHY (PHLEUM PRATENSE). OTHER GRASS SPECIES IDENTIFIED ARE RED FESCUE (FESTUCA RUBRA) AND GREEN FOXTAIL (SETARIA FABER). "SOLAR 'A'" CONTAINS A NARROW WOODLOT, APPROXIMATELY 100-FEET WIDE, THAT TRANSECTS THE SOUTHERN PORTION OF THE FIELD. THIS WOODLOT CONTAINS MULTIPLE HICKORY SPECIES (CARYA LACINIOSA AND CARYA OVATA), COMMON BUCKTHORN (RHAMNUS CATHARTICA), RIVERBANK GRAPE (VITIS RIPARIA), YELLOW AVENS (GEUM ALEPPICUM), AND COMMON SELF-HEAL (PRUNELLA VULGARIS).

AGRICULTURE FIELD

THE AREA IDENTIFIED AS "SOLAR 'C'" IS A 25-ACRE FIELD THAT IS PREDOMINANTLY IN ACTIVE AGRICULTURAL PRODUCTION. THE DOMINANT GROUND COVER CONSISTS OF CORN (ZEA MAYS) WITH SPARSE ANNUAL RAGWEED (AMBROSIA ARTEMISIIFOLIA). THIS FIELD IS SURROUNDED BY WINDBREAKS TO THE NORTH, WEST, AND SOUTH. AGRICULTURAL FIELDS ARE LOCATED TO THE EAST. THE WINDBREAKS ARE APPROXIMATELY 50-FEET AT THE WIDEST POINT. COMMON VEGETATION IDENTIFIED IN THESE WINDBREAKS CONSISTS OF THE FOLLOWING: SHAGBARK HICKORY (CARYA OVATA), COMMON BUCKTHORN (RHAMNUS CATHARTICA), BLACK WALNUT (JUGLANS NIGRA), RED OAK (QUERCUS RUBRA), HAWTHORN (CRATAEGUS CRUS-GALLI), TARTARIAN HONEYSUCKLE (LONICERA TATARICA), SMOOTH BROME (BROMUS INERMIS), TALL GOLDENROD (SOLIDAGO ALTISSIMA), AND WILD CARROT (DAUCUS CAROTA).

POND

THE AREA IDENTIFIED AS "SOLAR 'D' FLOATING ARRAY" IS LOCATED IN AN APPROXIMATELY 19-ACRE POND. THE POND DISPLAYS SIGNS OF DISTURBANCE DUE TO THE ABUNDANCE OF COMMON REED (PHRAGMITES AUSTRALIS), PURPLE LOOSESTRIPE (LYTHRUM SALICARIA), AND SANDBAR WILLOW (SALIX EXIGUA SUBSP. INTERIOR) GROWING IN THE SHALLOWER PORTIONS OF THE POND. OUTSIDE OF THE WETLAND FRINGE OF THE POND, THE UPLAND AREAS DISPLAY EVIDENCE OF NATIVE PLANT RESTORATION DUE TO THE PRESENCE OF SWITCHGRASS (PANICUM VIRGATUM), BIG BLUESTEM (ANDROPOGON GERARDII), INDIANGRASS (SORGHASTRUM NUTANS), AND LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM). MIXED AMONG THE NATIVE GRASS SPECIES INCLUDES PLANTS COMMONLY FOUND IN DISTURBED AREAS SUCH AS: COMMON BUCKTHORN (RHAMNUS CATHARTICA), EASTERN COTTONWOOD (POPULUS DELTOIDES), HICORY (DICHORIUM INTYBUS), AND TEASEL (DIPSACUS LACINIATUS). HONEY LOCUST (GLEDTISIA TRIACANTHOS) IS PRESENT EAST OF THE POND. SIGNS ADORNED NEAR THE POND INDICATE THAT THE AREA IS AN "MDEQ CONSERVATION EASEMENT."

ALL AREAS IDENTIFIED ABOVE ARE LOCATED ON SLOPES THAT ARE LESS THAN 5%. TREES THAT HAVE A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 24-INCHES INCLUDE BLACK WALNUT AND RED OAK. TREES THAT HAVE A DBH BETWEEN 12- AND 24-INCHES INCLUDE THE HICKORY SPECIES. TREES WITH A DBH LESS THAN 12-INCHES INCLUDE: COMMON BUCKTHORN, EASTERN COTTONWOOD, HONEY LOCUST, AND TARTARIAN HONEYSUCKLE.



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16 OF 19

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