



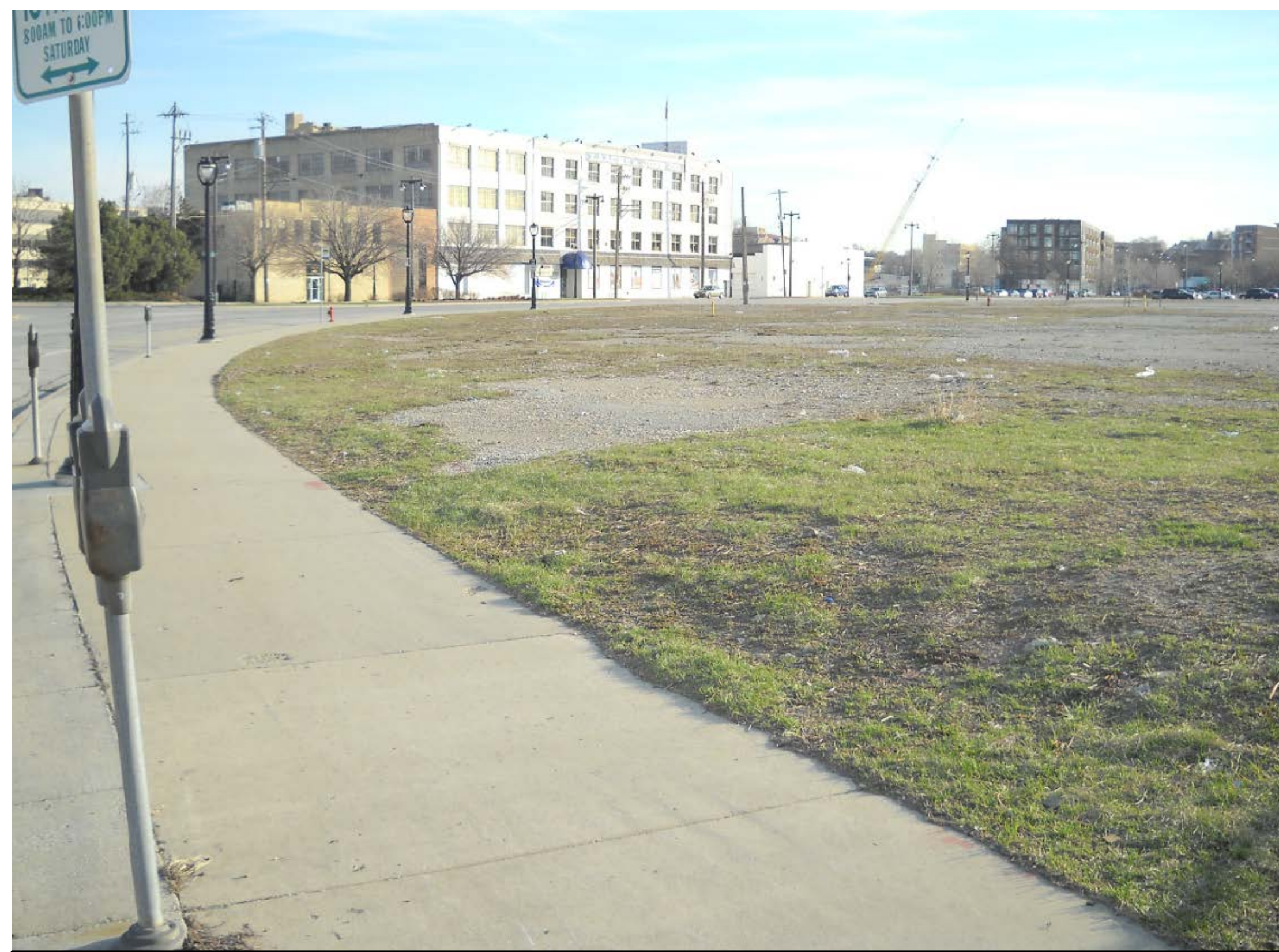
N
SITE AERIAL PHOTO
SCALE: N.T.S.



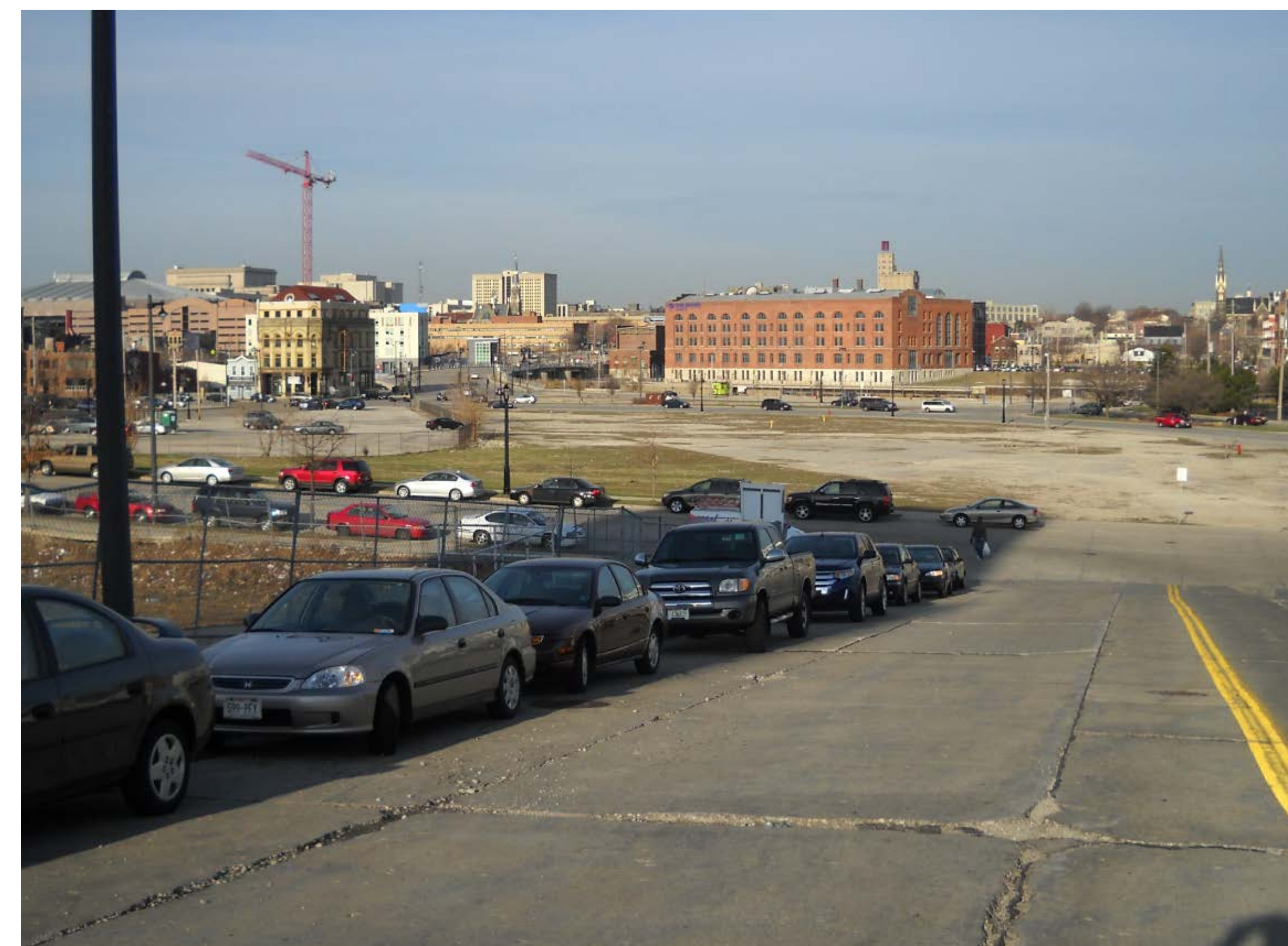
1 INT OF WATER ST AND MARKET ST LOOKING SOUTH
SCALE: N.T.S.



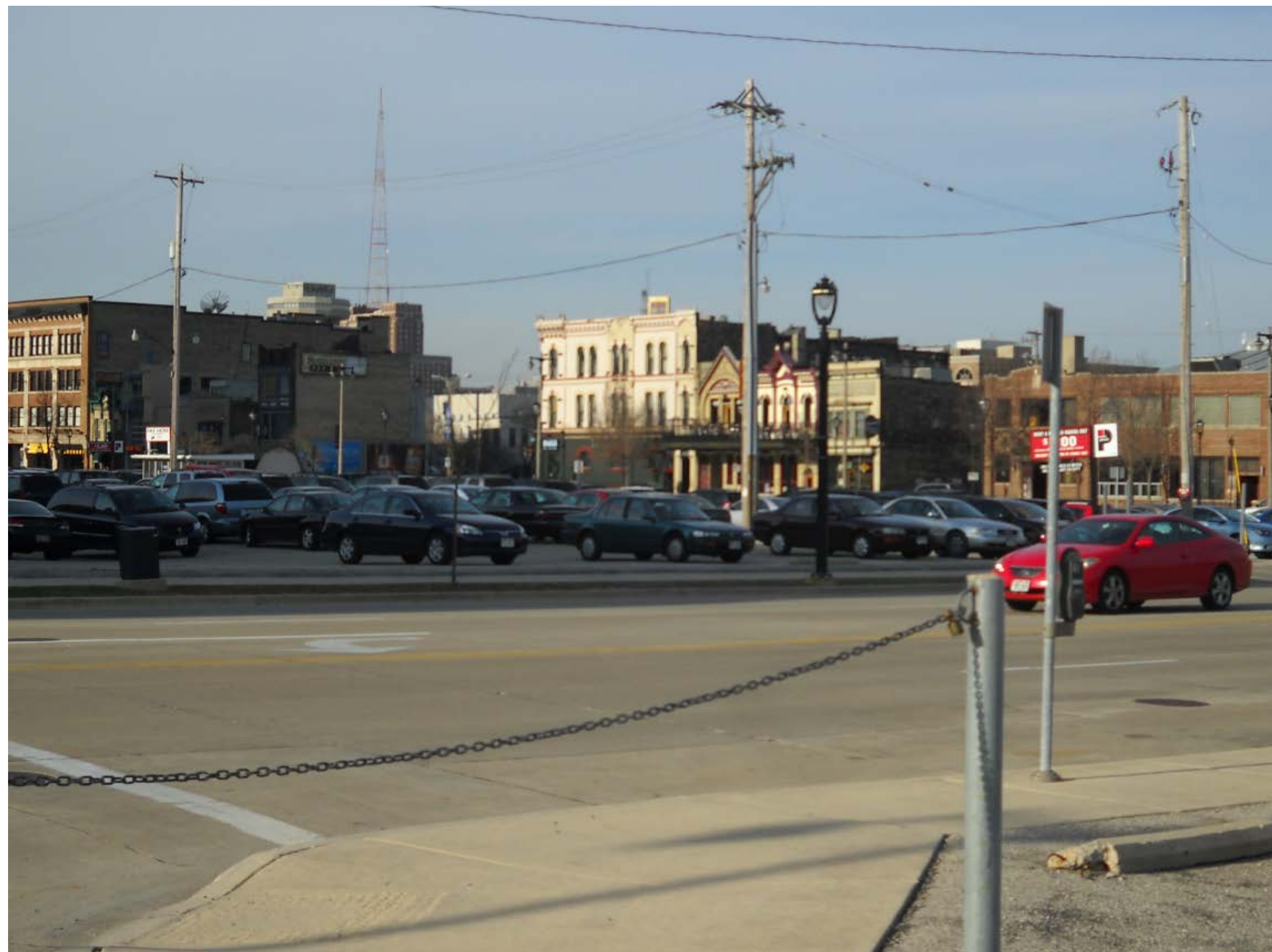
2 INT OF WATER ST AND MARKET ST LOOKING SOUTHWEST
SCALE: N.T.S.



3 WATER ST LOOKING NORTHEAST
SCALE: N.T.S.



4 OGDEN ST LOOKING WEST
SCALE: N.T.S.



1 INT OF KNAPP ST AND MARKET ST LOOKING SOUTHWEST
SCALE: N.T.S.



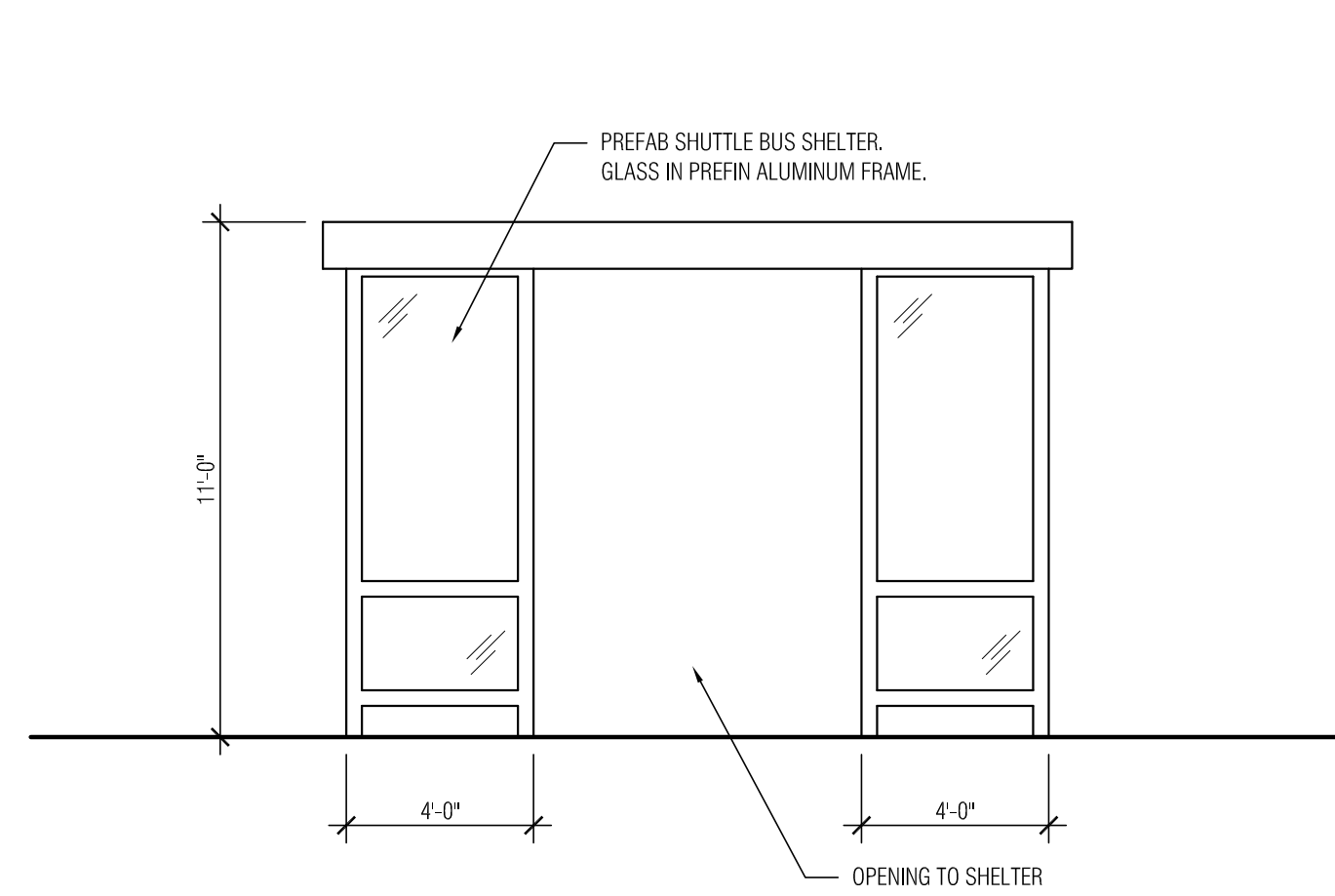
2 INT OF KNAPP ST AND MARKET ST LOOKING WEST
SCALE: N.T.S.



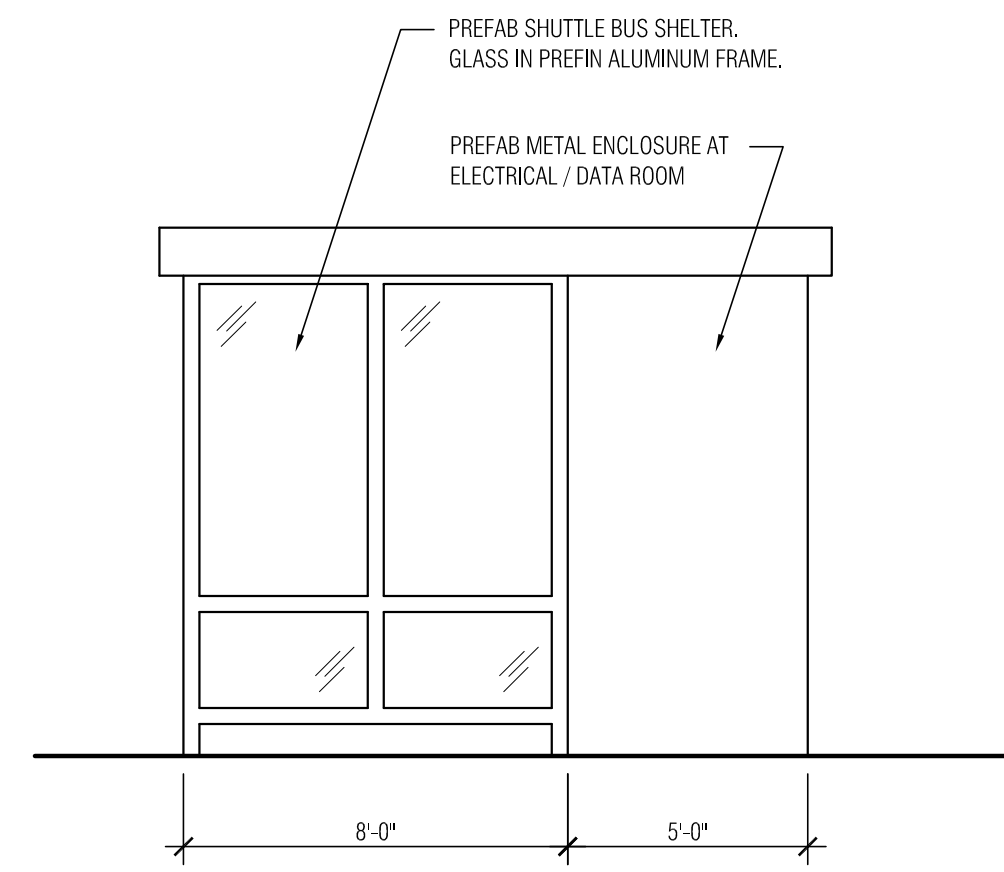
3 INT OF KNAPP ST AND MARKET ST LOOKING NORTHWEST
SCALE: N.T.S.



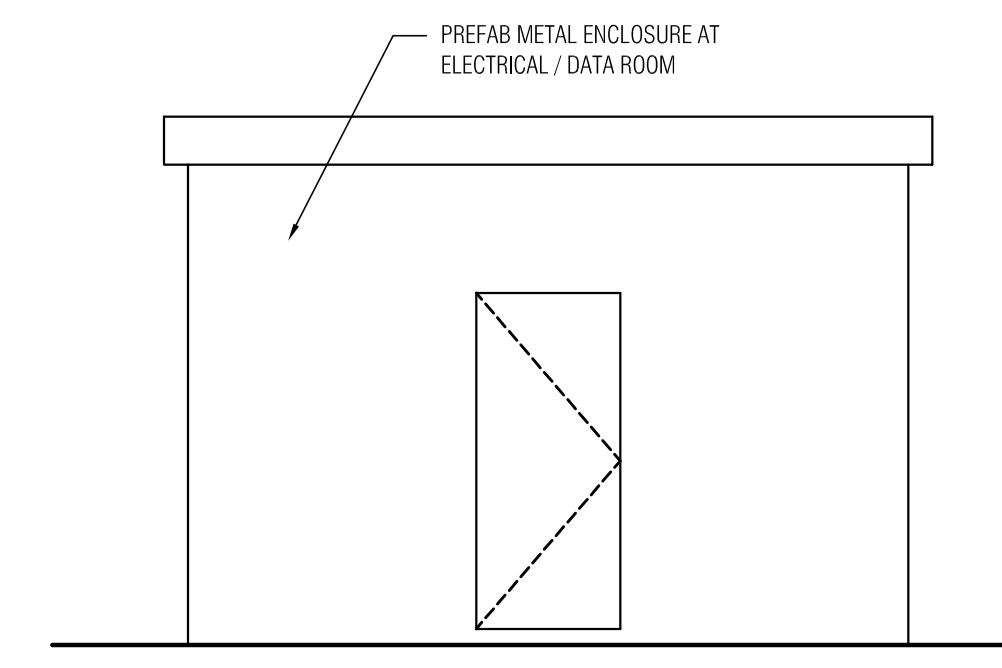
2 INT OF KNAPP ST AND MARKET ST LOOKING NORTH
SCALE: N.T.S.



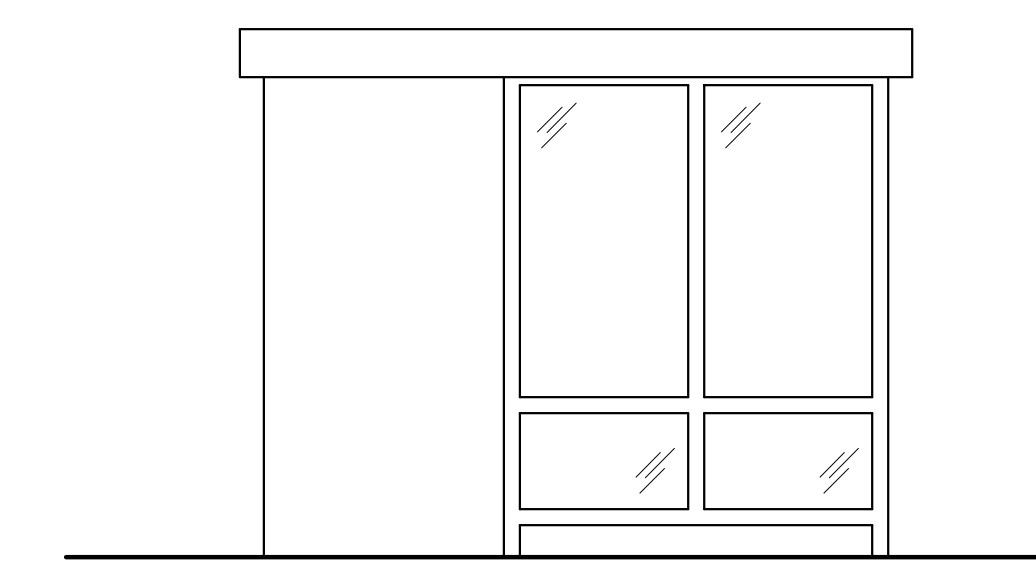
1 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



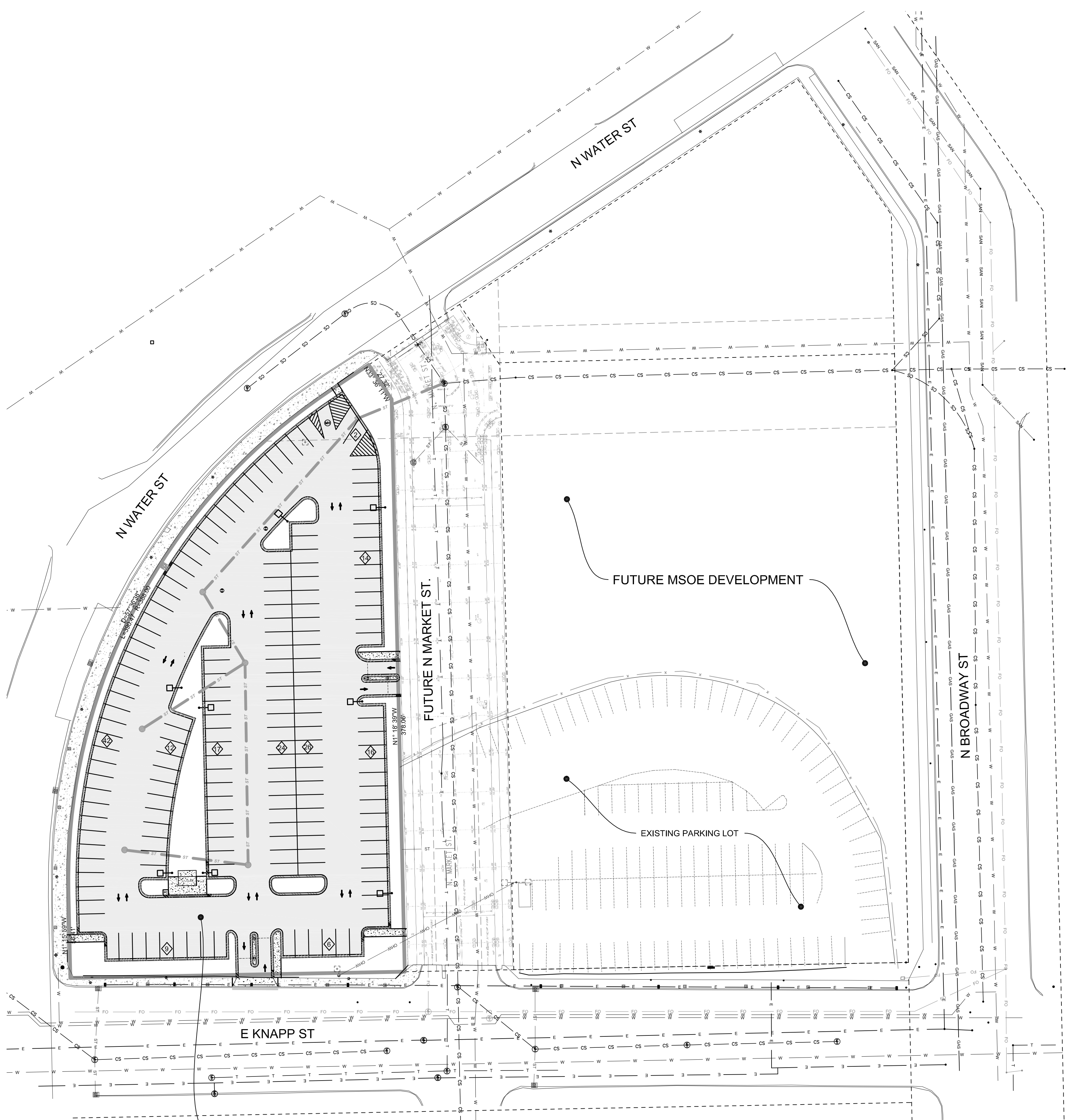
3 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



4 WEST ELEVATION
SCALE: 1/4" = 1'-0"



5 SIMILAR TYPE OF PREFAB STRUCTURE
SCALE: N.T.S.



PROPOSED PARKING LOT
173 SPACES

SITE ZONING AND LOCATION TABLE

LEGAL DESCRIPTION:
LOT 3 OF PROPOSED CSM

PROPERTY LOCATION: 1303 N BROADWAY STREET MILWAUKEE, WI

EXISTING ZONING: RED

PROPOSED ZONING: DPD

ZONING SETBACKS:

BUILDING SETBACK: 6 FEET (KNAPP STREET)
0 FEET (WATER & MARKET STREETS)

PARKING SETBACK: 6 FEET (KNAPP STREET)
5 FEET (WATER & MARKET STREETS)

PROPERTY OWNER: M&I MARSHALL & ILSLEY BANK

PROPOSED USAGE: PARKING LOT

SITE CALCULATION TABLE

TOTAL SITE AREA 67,728 SF / 1.56 AC

TOTAL DISTURBED AREA 67,728 SF / 1.56 AC

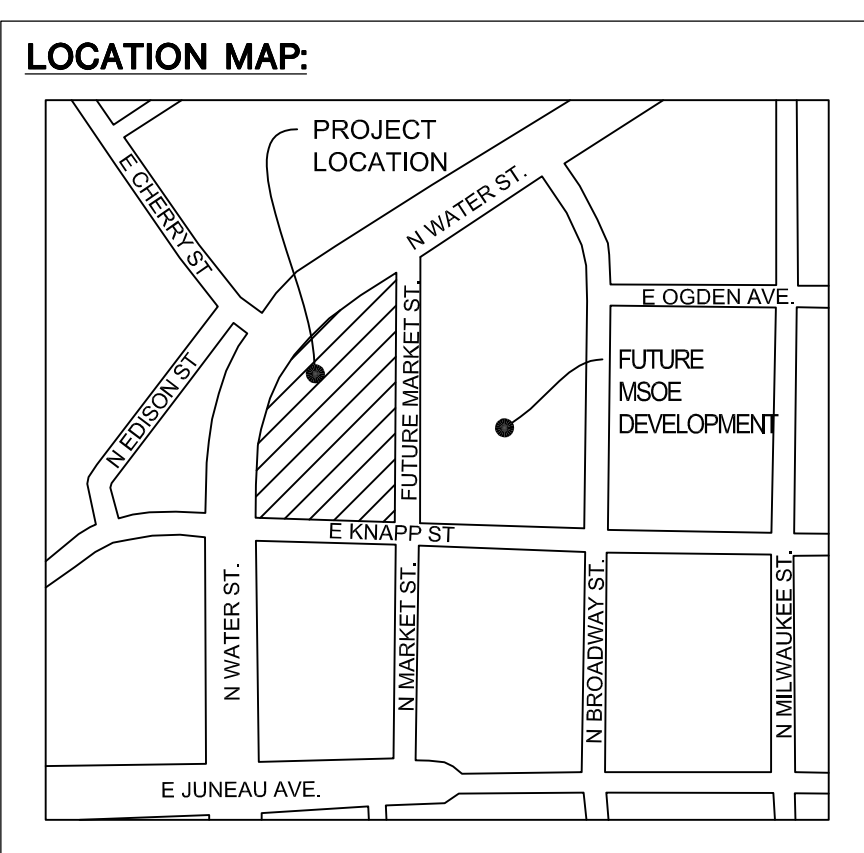
EXISTING IMPERVIOUS AREA 67,728 SF / 1.56 AC

PROPOSED IMPERVIOUS AREA 55,147 SF / 1.27 AC

PROPOSED GREENSPACE 12,589 SF / 0.29 AC (18.58% OF SITE)

PROPOSED REGULAR PARKING SPACES 173

PROPOSED TOTAL PARKING 173



HATCH LEGEND

[Hatch pattern]	PROPOSED CONCRETE SIDEWALK
[Hatch pattern]	EXISTING CONCRETE SIDEWALK
[Hatch pattern]	PROPOSED REGULAR DUTY ASPHALT PAVEMENT
[Hatch pattern]	PROPOSED DEPRESSED CURB
[Hatch pattern]	PROPOSED CURB TAPER
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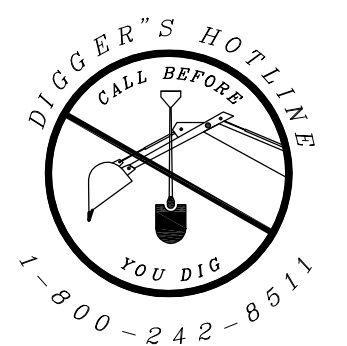
CIVIL SHEET INDEX:

C1.00	SITE PLAN - OVERALL
C1.01	SITE PLAN - DETAILED
C1.02	GRADING AND EROSION CONTROL PLAN
C1.03	DEMOLITION PLAN
C1.04	EXISTING SITE SURVEY
C5.01	CONSTRUCTION DETAILS
C5.02	CONSTRUCTION DETAILS

- GENERAL NOTES AND SPECIFICATIONS**
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UTILITY LEGEND

SYMBOL	DESCRIPTION
[Symbol]	EXISTING WATER MAIN
[Symbol]	PROPOSED WATER SERVICE
[Symbol]	EXISTING ELECTRICAL LINE
[Symbol]	PROPOSED ELECTRICAL LINE
[Symbol]	EXISTING GAS MAIN
[Symbol]	PROPOSED GAS MAIN
[Symbol]	EXISTING SANITARY SEWER
[Symbol]	PROPOSED SANITARY SEWER
[Symbol]	EXISTING STORM SEWER
[Symbol]	PROPOSED STORM SEWER
[Symbol]	OVERHEAD WIRES
[Symbol]	EXISTING POWER POLES
[Symbol]	EXISTING LIGHT POLES
[Symbol]	SANITARY MANHOLE
[Symbol]	FIRE HYDRANT
[Symbol]	EXISTING WATER VALVE
[Symbol]	PROPOSED WATER VALVE
[Symbol]	EXISTING STORM STRUCTURE
[Symbol]	PROPOSED STORM STRUCTURE
[Symbol]	DEMOTES EMERGENCY OVERFLOW ROUTE / DRAINAGE PATH
[Symbol]	PROPOSED & EXISTING SPOT ELEVATIONS



IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

Project:
**M&I WATER STREET
PARKING**

Location:
MILWAUKEE, WI

MUNICIPAL REVIEW SET
(NOT FOR CONSTRUCTION)
DATE: **DECEMBER 2, 2011**

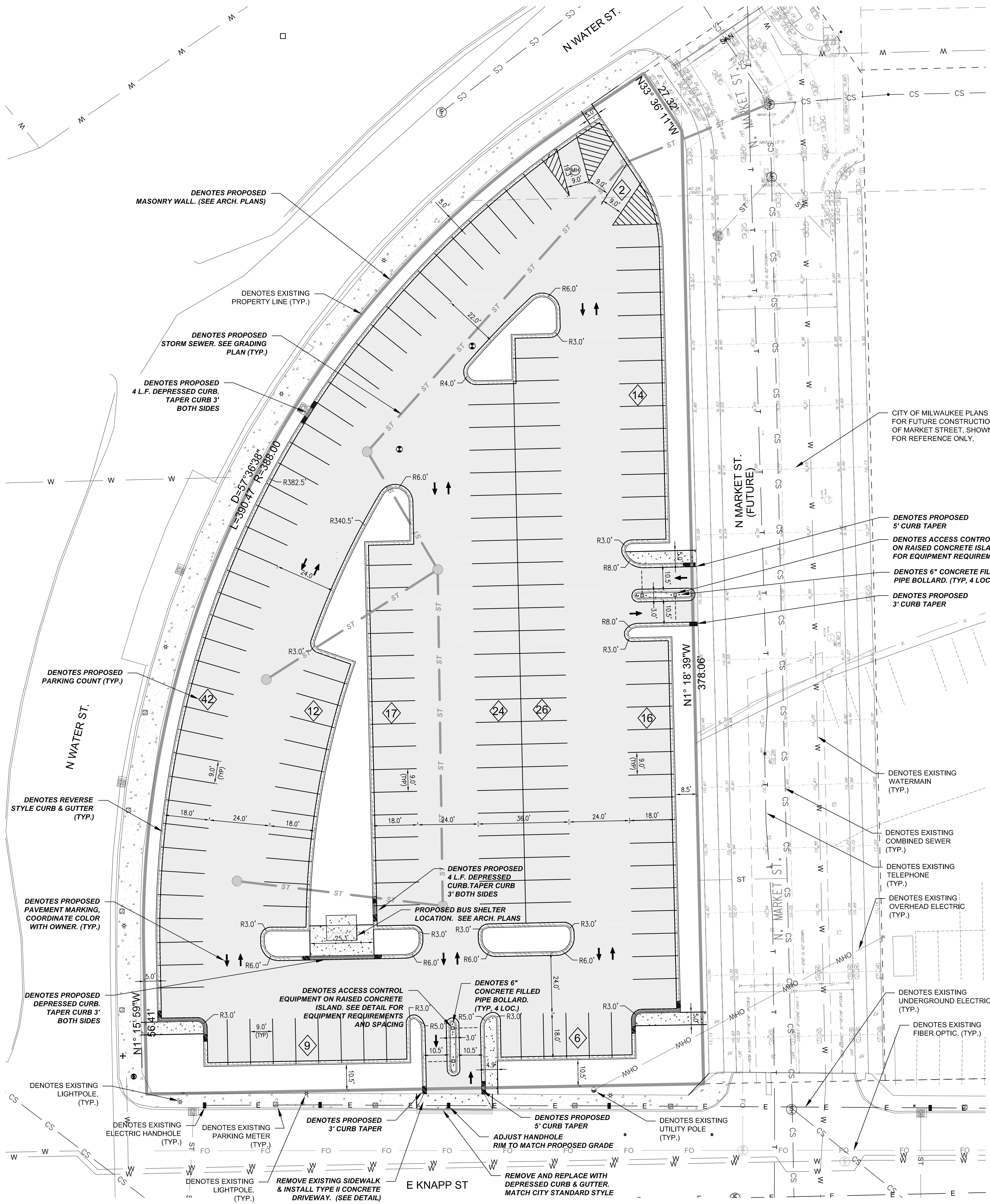
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**SITE PLAN -
OVERALL**

Date:	Issue Set:

Date:
01/03/2012

Project No.:
011-0034.00

Sheet No.:



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UTILITY LEGEND

SYMBOL	DESCRIPTION
— W — W — W —	EXISTING WATER MAIN
— W — W — W —	PROPOSED WATER SERVICE
— E — E — E —	EXISTING ELECTRICAL LINE
— E — E — E —	PROPOSED ELECTRICAL LINE
— GAS — GAS — GAS —	EXISTING GAS MAIN
— GAS — GAS — GAS —	PROPOSED GAS MAIN
— SAN — SAN — SAN —	EXISTING SANITARY SEWER
— SAN — SAN — SAN —	PROPOSED SANITARY SEWER
— ST — ST — ST —	EXISTING STORM SEWER
— ST — ST — ST —	PROPOSED STORM SEWER
— OHW — OHW — OHW —	OVERHEAD WIRES
○	EXISTING POWER POLES
○	EXISTING LIGHT POLES
○	SANITARY MANHOLE
○	FIRE HYDRANT
○	EXISTING WATER VALVE
○	PROPOSED WATER VALVE
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HATCH LEGEND

[Hatch Pattern]	PROPOSED CONCRETE SIDEWALK
[Hatch Pattern]	PROPOSED REGULAR DUTY ASPHALT PAVEMENT
[Hatch Pattern]	PROPOSED DEPRESSED CURB
[Hatch Pattern]	PROPOSED CURB TAPER
[Hatch Pattern]	PROPOSED REVERSE CURB



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Project:
**M&I WATER STREET
PARKING**

Location:
MILWAUKEE, WI

MUNICIPAL REVIEW SET
(NOT FOR CONSTRUCTION)
DATE: DECEMBER 2, 2011

Scale: 1"=20'

Sheet:
**SITE PLAN -
DETAILED**

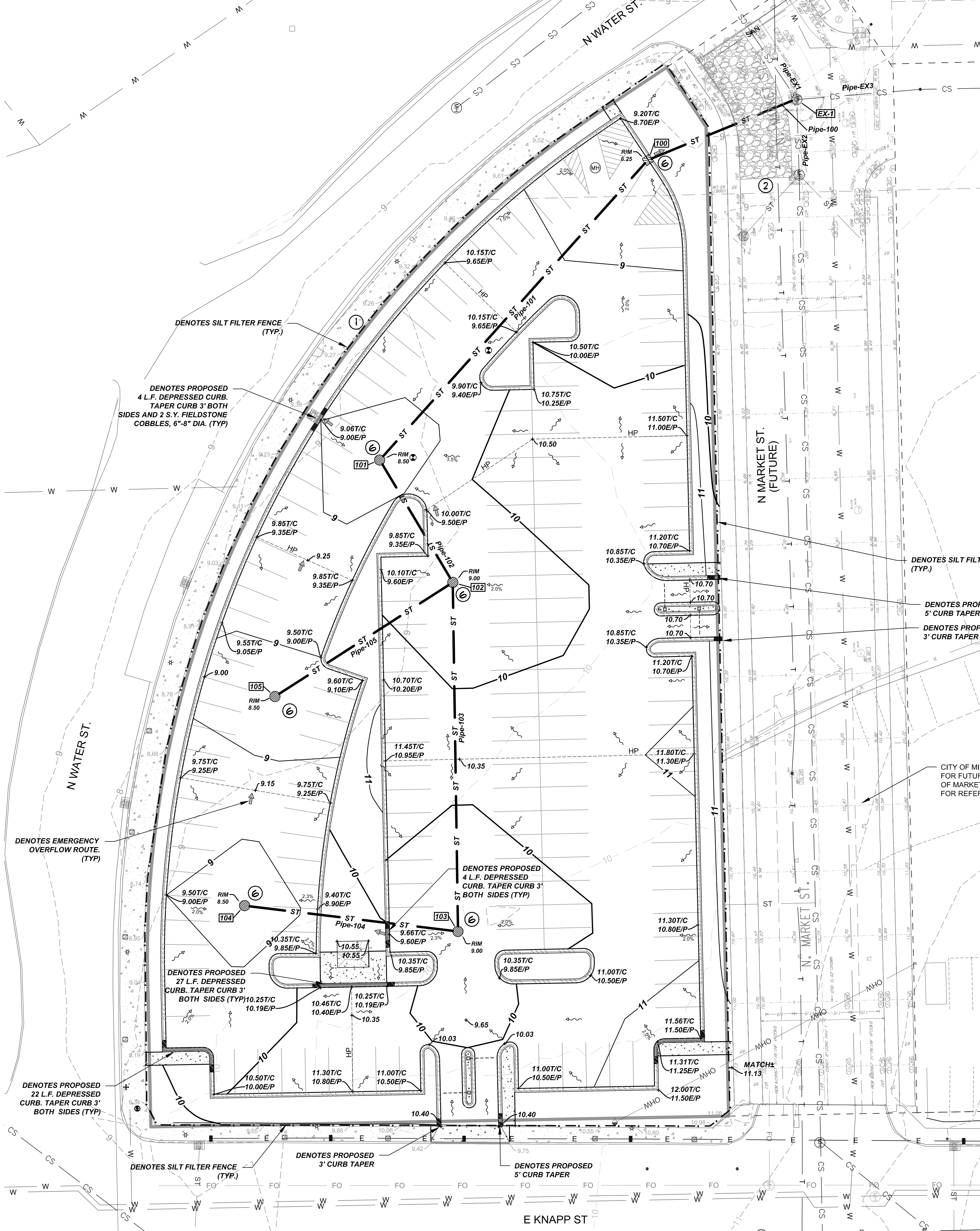
Date:	Issue Set:

Date:
01/03/2012

Project No.:
011-0034.00

Sheet No.:

C1.01



EROSION CONTROL NOTES AND PHASING

- ESTIMATED CONSTRUCTION TIMEFRAMES:
INSTALL EROSION CONTROL = MAY 2012
GRADING AND UTILITY INSTALLATION = MAY 2012
FINAL SITE GRADING AND RESTORATION = AUGUST 2012
COMPLETE CONSTRUCTION = SEPTEMBER 2012

ALL CHANGES TO THE ABOVE SCHEDULE SHALL BE REVIEWED AND APPROVED BY THE MUNICIPALITY.
- CONTRACTOR SHALL INSPECT ALL EROSION CONTROL PRACTICES WEEKLY AND AFTER ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER. THE CONTRACTOR SHALL PERFORM ALL INSPECTIONS AND DOCUMENTATION PER WISCONSIN DEPARTMENT OF COMMERCE, CHAPTER COMM. 60. ALL REQUIRED REPAIRS SHALL BE MADE WITHIN 24 HOURS.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR WILL HAVE IN PLACE, ALL APPLICABLE PLAN APPROVALS AND PERMITS.
- INSTALL CONSTRUCTION ENTRANCES, SEDIMENT TRACKING PADS, AND ALL SILT FILTER FENCING, AS INDICATED ON PLANS. SEDIMENT TRACKING PADS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PROJECT. SEDIMENT TRACKED ONTO STREETS SHALL BE REMOVED (BY SWEEPING) AT END OF EACH WORK DAY.
- BEGIN ROUGH GRADING SITE, AND INSTALLING STORM SEWER UTILITIES
- DISTRIBUTE TOPSOIL TO A DEPTH OF 6 INCHES. SURPLUS TOPSOIL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, COORDINATE W/ OWNER. FINAL GRADE, SEED AND MULCH SITE. PLACE EROSION CONTROL MATTING WHERE INDICATED ON PLANS. (SEEDING AND MULCHING TO CONFORM WITH APPROVED SEED MIXTURES AND APPLICATION RATES. SEE LANDSCAPE PLAN FOR FINAL SEED AND SOD SPECS. EROSION CONTROL MATTING TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.)
- INSTALL AGGREGATE BASE COURSE IN AREAS TO BE ASPHALT AND/OR CONCRETE PAVED
- INSTALL ASPHALT AND CONCRETE SECTIONS.
- UPON SITE STABILIZATION, REMOVE TEMPORARY EROSION CONTROL PRACTICES. CLEAN STRUCTURES OF ANY SEDIMENT AND/OR CONSTRUCTION DEBRIS.
- CONSTRUCTION AND WASTE MATERIALS SHALL BE PROPERLY DISPOSED OF ON A ROUTINE BASIS. NO CONSTRUCTION OR WASTE MATERIALS SHALL BE TRACKED, BLOWN OR OTHERWISE LOCATED OR STORED ON ADJACENT PROPERTIES.
- DUST CONTROL SHALL BE MAINTAINED ONSITE WITH USE OF A WATER TRUCK (IF NECESSARY).

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- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SOIL CONDITIONS, CONSTRUCTION MANAGER MAY HAVE SOILS REPORT FOR MORE INFO.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED UP PLANS (AS-BUILTS) SHOWING ANY CHANGES DURING CONSTRUCTION.

Storm Structure Table

#	Structure Details
100	TRAPPED CATCH BASIN - CURB RIM = 8.25 Pipe-100 = 2.32 Pipe-101 = 2.32
101	4" CATCH BASIN RIM = 8.50 Pipe-101 = 2.63 Pipe-102 = 3.63
102	4" CATCH BASIN RIM = 9.00 Pipe-102 = 3.85 Pipe-103 = 4.10 Pipe-105 = 4.35
103	4" CATCH BASIN RIM = 9.00 Pipe-103 = 4.77 Pipe-104 = 5.02
104	3" CATCH BASIN RIM = 8.50 Pipe-104 = 5.43
105	3" CATCH BASIN RIM = 8.50 Pipe-105 = 5.16
EX-1	EXISTING MANHOLE RIM = 4.93 Pipe-EX1 = -0.90 Pipe-100 = 1.46 Pipe-EX3 = -0.94 Pipe-EX2 = -0.17

Storm Pipe Table

Pipe Name	Size	Material	Length	Slope	Notes
Pipe-100	15	RCP	61	1.40%	OUTLET CONTROL PIPE
Pipe-101	30	RCP	154	0.20%	
Pipe-102	18	RCP	54	0.40%	
Pipe-103	15	RCP	133	0.50%	
Pipe-104	12	RCP	82	0.50%	
Pipe-105	12	RCP	81	1.00%	
Pipe-EX1	48	RCP	91	1.25%	EXIST. COMBINED SEWER
Pipe-EX2	48	RCP	29	0.64%	EXIST. COMBINED SEWER
Pipe-EX3	48	RCP	47	0.64%	EXIST. COMBINED SEWER

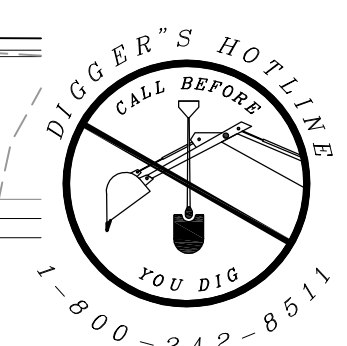
UTILITY LEGEND

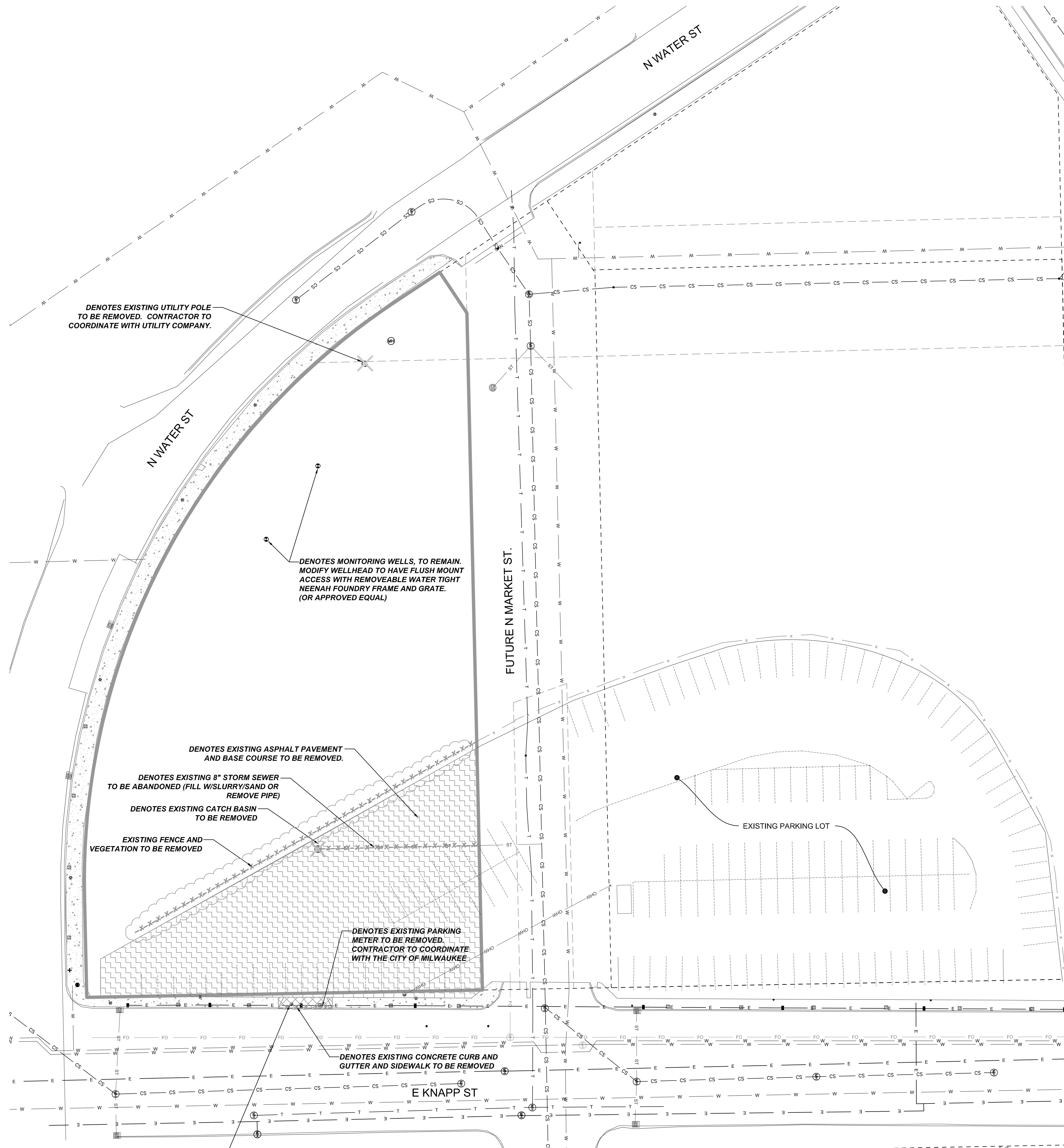
SYMBOL	DESCRIPTION
— W — W — W —	EXISTING WATER MAIN
— W — W — W —	PROPOSED WATER SERVICE
— E — E — E —	EXISTING ELECTRICAL LINE
— E — E — E —	PROPOSED ELECTRICAL LINE
— GAS — GAS — GAS —	EXISTING GAS MAIN
— GAS — GAS — GAS —	PROPOSED GAS MAIN
— SAN — SAN — SAN —	EXISTING SANITARY SEWER
— SAN — SAN — SAN —	PROPOSED SANITARY SEWER
— ST — ST — ST —	EXISTING STORM SEWER
— ST — ST — ST —	PROPOSED STORM SEWER
— CHW — CHW — CHW —	OVERHEAD WIRES
⊙	EXISTING POWER POLES
⊙	EXISTING LIGHT POLES
⊙	SANITARY MANHOLE
⊙	FIRE HYDRANT
⊙	EXISTING WATER VALVE
⊙	PROPOSED WATER VALVE
⊙	EXISTING STORM STRUCTURE
⊙	PROPOSED STORM STRUCTURE
⊙	DENOTES EMERGENCY OVERFLOW ROUTE / DRAINAGE PATH
⊙	PROPOSED & EXISTING SPOT ELEVATIONS

EROSION CONTROL LEGEND

① SILT FILTER FENCE	④ DITCH CHECK
② CONSTRUCTION ENTRANCE	⑤ STABILIZED TOPSOIL PILE
③ EROSION MAT	⑥ INLET SEDIMENT GUARD

IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.





NOTE
 1. ITEMS SHOWN FOR DEMOLITION ON THIS PLAN WILL BE PHASED. REFER TO PHASING PLANS FOR SEQUENCE OF ITEMS TO BE DEMOLISHED, RE-LOCATED, OR ABANDONED.

- GENERAL NOTES AND SPECIFICATIONS**
1. THE EXISTING SITE INFORMATION ON THIS PLAN WAS TAKEN FROM A SITE SURVEY PROVIDED BY THE SIGMA GROUP. THE ENGINEER MAKES NO WARRANTY OR REPRESENTATION WITH REFERENCE TO THE ACCURACY AND COMPLETENESS OF THE EXISTING CONDITIONS INDICATED OR NOT INDICATED ON THE ENGINEERING PLANS PROVIDED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SITE CONDITIONS INCLUDING UNDERGROUND UTILITIES, UNDERGROUND UTILITY ELEVATIONS, BUILDING SETBACKS AND EXISTING BUILDING LOCATIONS. THE CONTRACTOR SHALL INFORM THE OWNER AND ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WITH WORK. QUESTIONS REGARDING THE EXISTING SURVEY SHALL BE DIRECTED TO THE PARTIES LISTED ABOVE.
 2. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL TO BE CONNECTED TO (VERIFYING ELEVATION, LOCATION AND SIZE). SHOULD THE EXISTING UTILITY NOT BE AS INDICATED ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR EVALUATION.
 3. ALL UTILITY CONSTRUCTION SHALL ADHERE TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (2003), AS WELL AS, THE CITY OF MILWAUKEE CONSTRUCTION STANDARDS AND THE DEPT. OF COMMERCE SEC. 82-87.
 4. ALL UTILITY PERMITS MUST BE RECEIVED FROM THE CITY OF MILWAUKEE PRIOR TO THE START OF CONSTRUCTION.
 5. NOTIFY THE PUBLIC WORKS INSPECTION DEPT. AT LEAST 48 HOURS BEFORE STARTING CONSTRUCTION.
 6. BACKFILL REQUIREMENTS AND ROADWAY/SIDEWALK RESTORATION SHALL ADHERE TO LOCAL STANDARDS (GRANULAR BACKFILL UNDER OR WITHIN 5' OF CURBS, SIDEWALK, OR PAVEMENT. SPOIL MAY BE USED ELSEWHERE. SLURRY BACKFILL WILL BE REQUIRED IN PUBLIC ROADWAYS.)
 7. PROPOSED STORM SEWER SHALL BE RCP, ASTM C-76, CLASS III WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-433 (UNLESS OTHERWISE NOTED).
 8. UTILITY TRENCHES SHALL BE MECHANICALLY COMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
 9. SILT FENCE AND ALL OTHER EROSION CONTROL METHODS MUST BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALSO, CONTRACTOR IS RESPONSIBLE FOR REMOVING EROSION CONTROL METHODS ONCE THE SITE IS STABILIZED.
 10. THE PROPOSED SITE LOCATION AND SURROUNDING STREETS MUST BE KEPT DEBRIS FREE. SWEEP STREETS AS NEEDED TO MAINTAIN CLEAN STREETS.
 11. ALL EXCAVATED OR STRIPPED MATERIALS NOT BEING REPLACED IN UTILITY TRENCHES OR BEING USED FOR FILL SHALL BE REMOVED FROM THE SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER.
 12. ALL DISTURBED GRASS AREAS SHALL BE STABILIZED (PER DNR TECHNICAL STANDARDS) WITHIN 7 DAYS OF COMPLETION. DISTURBED GRASS AREAS SHALL BE TOPSOILED (6"), RESEEDED AND STABILIZED. AREAS WITH A SLOPE OF 3H:1V OR STEEPER SHALL BE COVERED WITH A CLASS 1 - TYPE A EROSION FABRIC. (SEE SPECIFICATIONS)
 13. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING & FOUNDATION DETAILS AND ORIENTATION.
 14. ALL ON-SITE CONCRETE CURB AND GUTTER TO BE 18" WIDE VERTICAL FACE, UNLESS OTHERWISE NOTED. REVERSE OR REGULAR STYLE CURB DENOTED ON PLANS.
 15. ALL CURB ELEVATIONS ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. SEE CURB DETAIL FOR TOP OF CURB ELEVATIONS.
 16. ALL CURB RADII ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 17. CONTRACTOR SHALL MATCH PROPOSED CONCRETE CURB AND GUTTER, SIDEWALK AND PAVEMENT TO EXISTING IN ELEVATION AND ALIGNMENT.
 18. REMOVAL OF CURB AND GUTTER, SIDEWALK AND PAVEMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE WISCONSIN D.O.T.
 19. ALL CONCRETE FOR CURB AND GUTTER, ROADWAY AND SIDEWALKS MUST CONFORM TO THE STANDARD SPECIFICATIONS FOR READY MIXED CONCRETE. MINIMUM 28 DAY COMPRESSIVE STRENGTH TEST MUST EQUAL 4000 PSI.
 20. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL PROPERTY CORNERS.
 21. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS. CONTRACTOR SHALL DOCUMENT ALL EXISTING DAMAGE PRIOR TO START OF CONSTRUCTION AND NOTIFY CONSTRUCTION MANAGER OF ANY FINDINGS.
 22. PROJECT SAFETY ON-SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
 23. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SOIL CONDITIONS, CONSTRUCTION MANAGER MAY HAVE SOILS REPORT FOR MORE INFO.
 24. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED UP PLANS (AS-BUILTS) SHOWING ANY CHANGES DURING CONSTRUCTION.

UTILITY LEGEND

SYMBOL	DESCRIPTION
— W — W —	EXISTING WATER MAIN
— W — W —	PROPOSED WATER SERVICE
— E — E —	EXISTING ELECTRICAL LINE
— E — E —	PROPOSED ELECTRICAL LINE
— GAS — GAS —	EXISTING GAS MAIN
— GAS — GAS —	PROPOSED GAS MAIN
— SAN — SAN —	EXISTING SANITARY SEWER
— SAN — SAN —	PROPOSED SANITARY SEWER
— ST — ST —	EXISTING STORM SEWER
— ST — ST —	PROPOSED STORM SEWER
— OHW — OHW —	OVERHEAD WIRES
☉	EXISTING POWER POLES
⊙	EXISTING LIGHT POLES
⊙	SANITARY MANHOLE
⊙	FIRE HYDRANT
⊙	EXISTING WATER VALVE
⊙	PROPOSED WATER VALVE
⊙	EXISTING STORM STRUCTURE
⊙	PROPOSED STORM STRUCTURE
⊙	DENOTES EMERGENCY OVERFLOW ROUTE / DRAINAGE PATH
100.00	PROPOSED & EXISTING SPOT ELEVATIONS

DEMOLITION LEGEND

▨	DENOTES PAVEMENT REMOVAL AREA
▩	DENOTES CONCRETE SIDEWALK REMOVAL AREA
-X-X-X-X-	DENOTES ITEM TO BE ABANDONED OR REMOVED

IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

All bearings are referenced to the South line of the Southeast 1/4 of Section 20-7-22, which is assumed to bear S 86°58'45" W, State Plane Coordinate System, South Zone.
 Elevation Datum is City of Milwaukee.
 Add 580.60 to convert to NGVD 29

Project:
M&I WATER STREET PARKING

Location:
 MILWAUKEE, WI

MUNICIPAL REVIEW SET
 (NOT FOR CONSTRUCTION)
 DATE: DECEMBER 2, 2011

Scale: 1"=40'
 Sheet:
 EXISTING SITE SURVEY

Date:
 01/03/2012
 Project No.:
 011-0034.00
 Sheet No.:

MILWAUKEE, WISCONSIN
TOPOGRAPHIC SURVEY

1.	Add utility inverts 2/11/11	KAS
NO.	REVISION	DATE BY
GRAPHIC SCALE		
0 30' 60'		
DRAWING NO. 11-0034 C1.04 Existing Survey.dwg		
DRAWN BY: BMR/KAS/BJH		
DATE: February 3, 2011		
PROJECT NO: 2805		
CHECKED BY: KAS		
APPROVED BY: KAS		
SHEET NO.:		

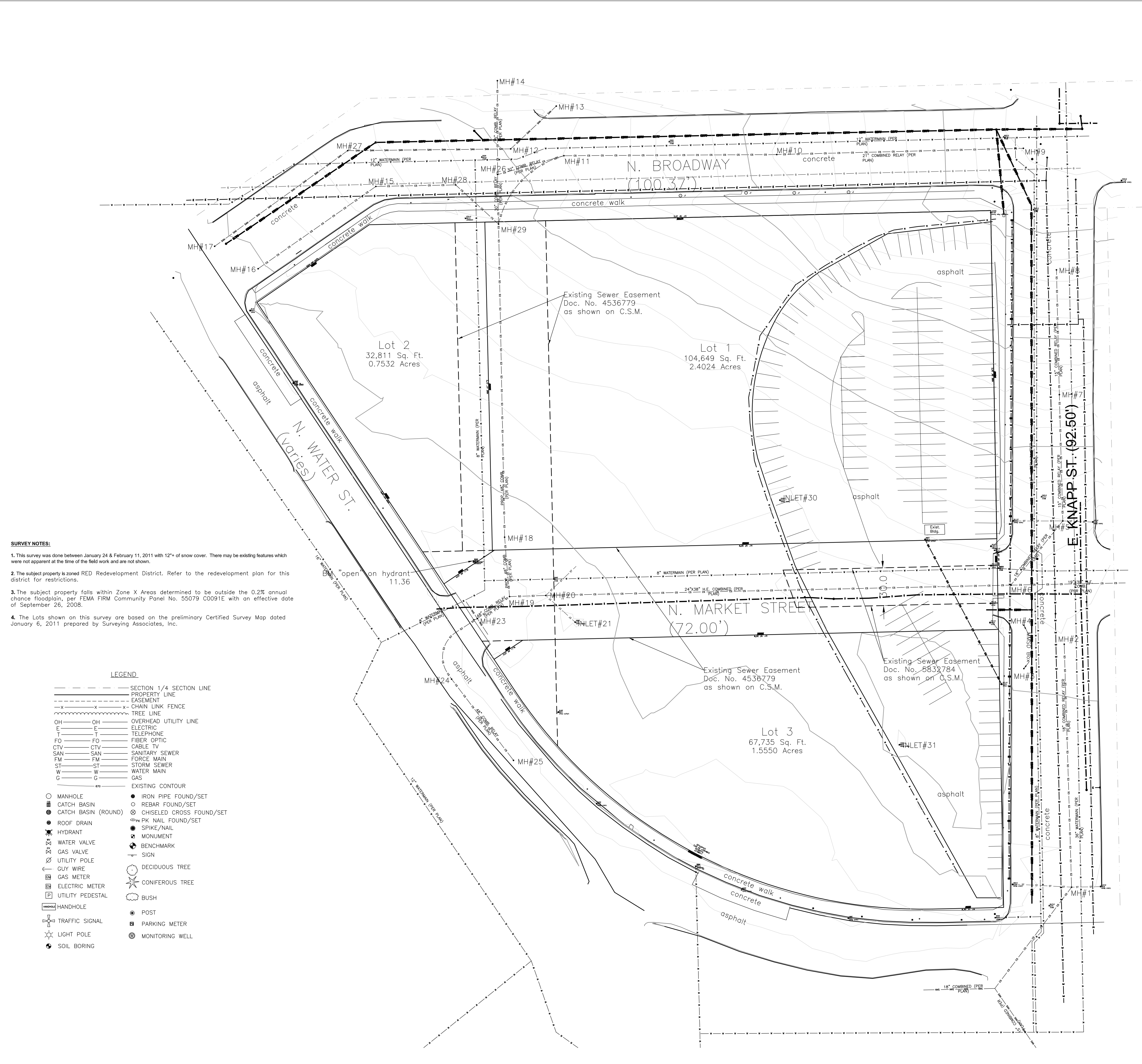
V 100

Utility Structure Data

MH#1 Rim - 9.36 10" N inv. 2.9 10" S inv. 5.4 18" W inv. 0.6 18" E inv. 0.7	MH#14 Rim - 17.82 12" N inv. 12.4 15" W inv. 7.3 15" E inv. 7.7
MH#2 Rim - 10.88 18" W inv. 1.2 18" E inv. 1.9	MH#15 could not open Rim - 12.58 18" S inv. 3.2 per plan 15" NW inv. 3.4 per plan
MH#3 MMSD junction box Rim - 10.77 24" N inv. 0.2 18" S inv. 0.2 10" NE inv. 1.2 SE inv. 0.4	MH#16 could not open Rim - 9.85 15" SE inv. 3.9 per plan
MH#4 Rim - 10.77 24" N inv. 0.2 18" S inv. 0.2 10" NE inv. 1.2 SE inv. 0.4	MH#17 Rim - 9.71 12" N inv. -2.8 12" S inv. -2.3 12" SE inv. -2.4
MH#5 Rim - 12.96 18" W inv. 2.6 15" E inv. 2.7	MH#18 Rim - 9.43 10" N inv. 2.03 48" W inv. -1.0 48" E inv. -0.8
MH#6 Rim - 11.24	MH#19 Rim - 8.73 48" NW inv. -1.1 48" E inv. -1.1
MH#7 Rim - 17.87 12" E&W - gravel in bottom 8" N inv. 8.4 10" NE inv. 8.3 8" S inv. 9.0	MH#20 Rim - 8.92 N inv. -0.2 S inv. -0.0 10" SW inv. 3.2
MH#8 Rim - 23.64 gravel in bottom	INLET#21 Rim - 8.37 full of debris
MH#9 Rim - 27.05 could not open 18" S inv. 15.0 per plan 21" N inv. 14.5 per plan	MH#23 Rim - 8.64 48" NW inv. -1.6 48" SE inv. -1.6 10" NW inv. 1.8
MH#10 Rim - 21.16 21" N inv. 7.3 24" S inv. 7.4 12" W inv. 13.9	MH#24 Rim - 9.24 48" NE inv. -1.6 48" SW inv. -1.6
MH#11 Rim - 16.02 30" N inv. 2.2 24" S inv. 2.9 12" E inv. 9.8	MH#25 Rim - 9.29 48" NE inv. -1.7 48" SW inv. -1.7
MH#12 Rim - 15.14 12" N inv. -1.3 12" S inv. -1.0	MH#26 Rim - 14.63 30" S inv. 1.5 30" W inv. 1.5 15" E inv. 4.0
MH#13 Rim - 16.52 12" NW inv. -0.3	MH#27 could not open Rim - 12.67 12" S inv. -1.7 per plan 12" NW inv. -2.0 per plan
	MH#28 could not open Rim - 13.86 18" N inv. 2.8 per plan 18" S inv. 2.8 per plan
	MH#29 could not open Rim - 13.86 30" E inv. 1.2 per plan 48" W inv. 0.2 per plan 18" NE inv. 2.3 per plan
	INLET#30 Rim - 10.52
	INLET#31 Rim - 8.88

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD DATA OBTAINED DURING THIS SURVEY. INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY, AND AS-BUILT INFORMATION, WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

NOTE: SURVEY COMPLETED BY THE SIGMA GROUP. THE ENGINEER MAKES NO WARRANTY OR REPRESENTATION WITH REFERENCE TO THE ACCURACY AND COMPLETENESS OF THE EXISTING CONDITIONS INDICATED OR NOT INDICATED ON THE ENGINEERING PLANS PROVIDED.



SURVEY NOTES:

- This survey was done between January 24 & February 11, 2011 with 12" of snow cover. There may be existing features which were not apparent at the time of the field work and are not shown.
- The subject property is zoned RED Redevelopment District. Refer to the redevelopment plan for this district for restrictions.
- The subject property falls within Zone X Areas determined to be outside the 0.2% annual chance floodplain, per FEMA FIRM Community Panel No. 55079 C0091E with an effective date of September 26, 2008.
- The Lots shown on this survey are based on the preliminary Certified Survey Map dated January 6, 2011 prepared by Surveying Associates, Inc.

LEGEND

---	SECTION 1/4 SECTION LINE	○	MANHOLE
---	PROPERTY LINE	○	CATCH BASIN
---	EASEMENT	○	CATCH BASIN (ROUND)
---	CHAIN LINK FENCE	○	ROOF DRAIN
---	TREE LINE	○	HYDRANT
OH	OVERHEAD UTILITY LINE	○	WATER VALVE
E	ELECTRIC	○	GAS VALVE
T	TELEPHONE	○	UTILITY POLE
FO	FIBER OPTIC	○	GLY WIRE
CTV	CABLE TV	○	GAS METER
SAN	SANITARY SEWER	○	ELECTRIC METER
FM	FORCE MAIN	○	UTILITY PEDESTAL
ST	STORM SEWER	○	HANDHOLE
W	WATER MAIN	○	TRAFFIC SIGNAL
G	GAS	○	LIGHT POLE
---	EXISTING CONTOUR	○	SOIL BORING
○	IRON PIPE FOUND/SET	○	
○	REBAR FOUND/SET	○	
○	CHISELED CROSS FOUND/SET	○	
○	PK NAIL FOUND/SET	○	
○	SPIKE/NAIL	○	
○	MONUMENT	○	
○	BENCHMARK	○	
○	SIGN	○	
○	DECIDUOUS TREE	○	
○	CONIFEROUS TREE	○	
○	BUSH	○	
○	POST	○	
○	PARKING METER	○	
○	MONITORING WELL	○	

Project:
**M&I WATER STREET
 PARKING**

Location:
MILWAUKEE, WI

MUNICIPAL REVIEW SET
 (NOT FOR CONSTRUCTION)
 DATE: DECEMBER 2, 2011

Scale:

Sheet:
**CONSTRUCTION
 DETAILS**

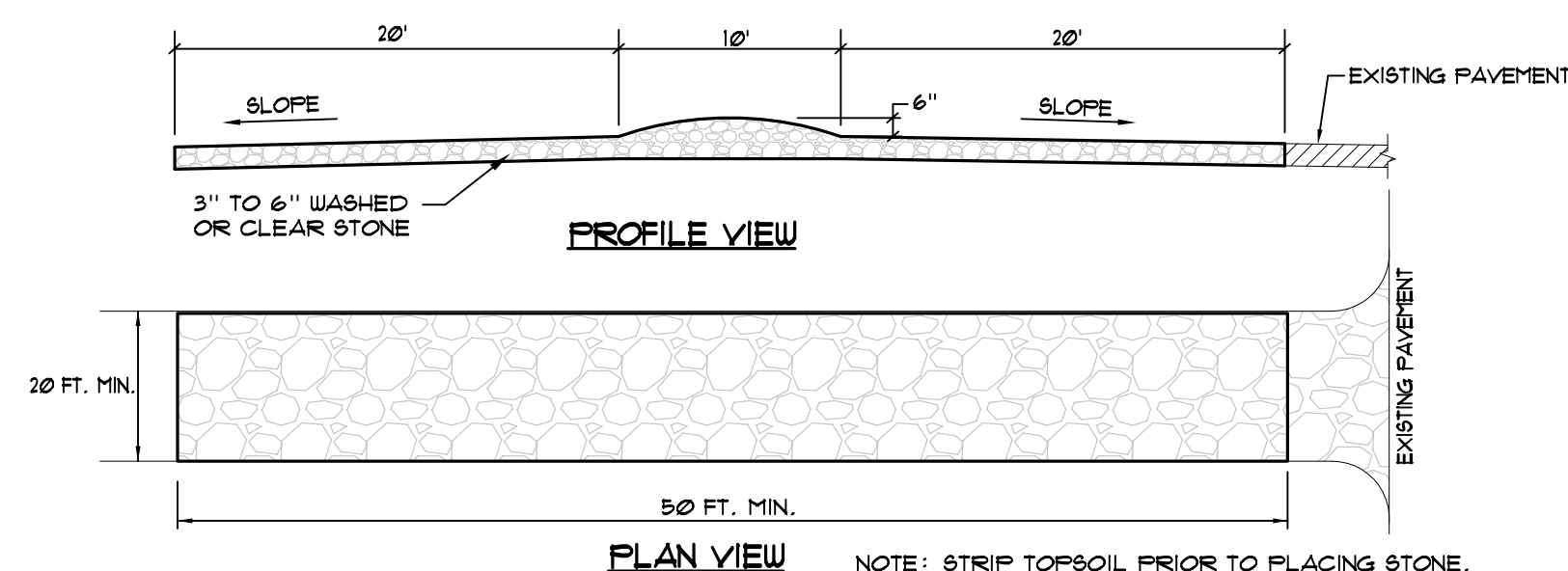
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Date:
01/03/2012

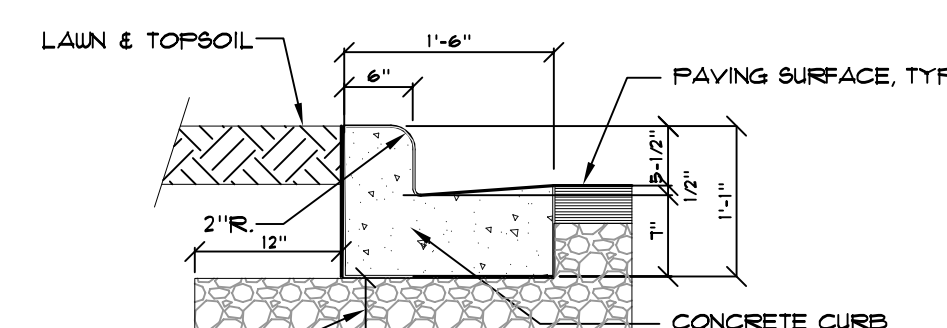
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Sheet No.:

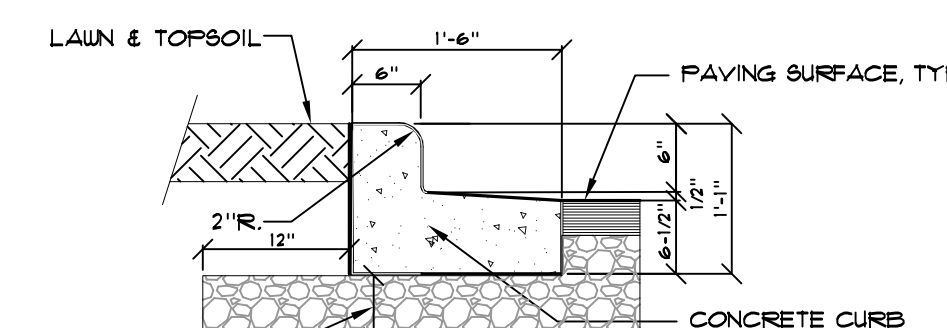
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3 CONSTRUCTION ENTRANCE AND TRACKING PAD DETAIL 102
 NTS 11/19/10



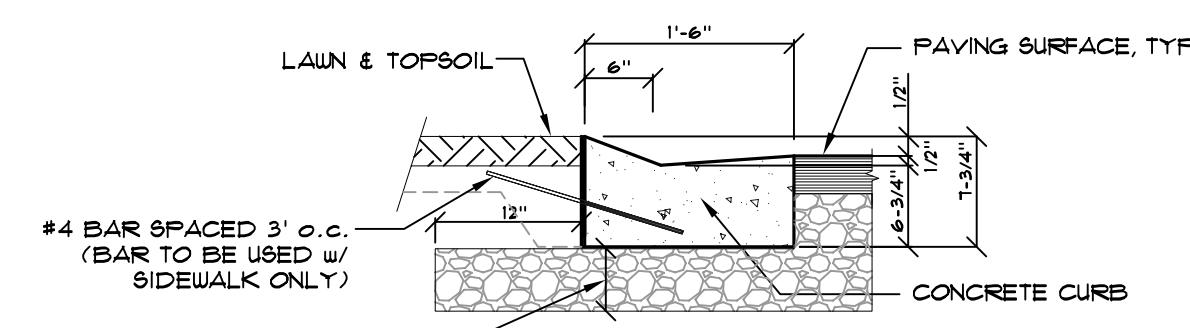
REGULAR STYLE
 MINIMUM 5" COMPACTED BASE COARSE UNDER CURB



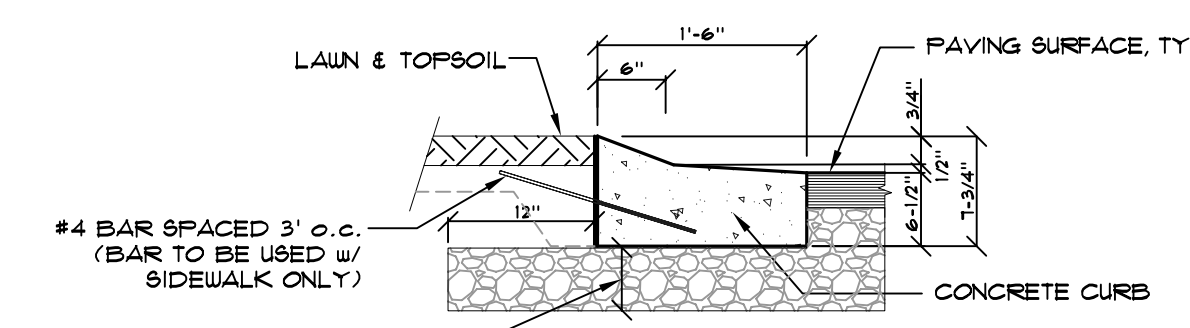
REVERSE STYLE
 MINIMUM 5" COMPACTED BASE COARSE UNDER CURB

NOTE:
 REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.
 CONTRACTOR TO USE CITY OF MILWAUKEE CURB DETAILS FOR AREAS IN THE PUBLIC ROADWAY

7 18" VERTICAL FACE CURB 504
 NTS 11/19/10



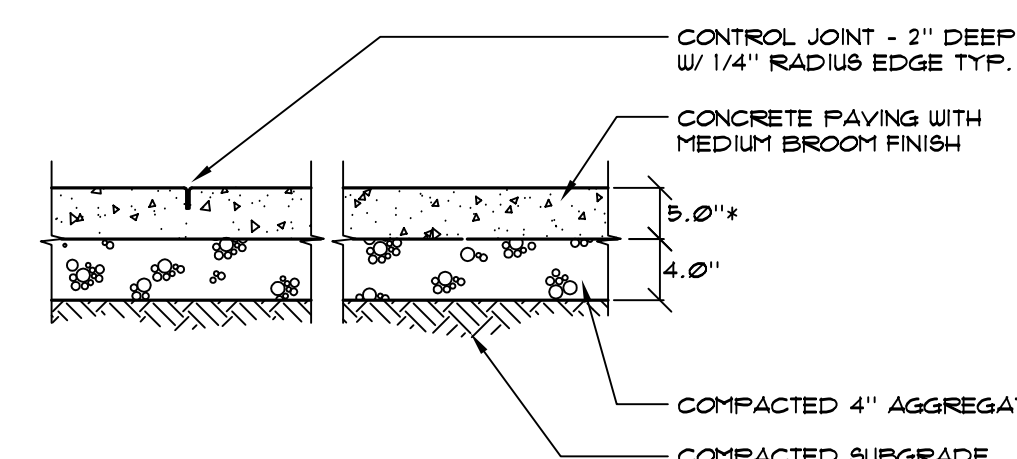
REGULAR STYLE
 #4 BAR SPACED 3' O.C. (BAR TO BE USED W/ SIDEWALK ONLY)
 MINIMUM 5" COMPACTED BASE COARSE UNDER CURB



REVERSE STYLE
 #4 BAR SPACED 3' O.C. (BAR TO BE USED W/ SIDEWALK ONLY)
 MINIMUM 5" COMPACTED BASE COARSE UNDER CURB

NOTE:
 REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.
 CONTRACTOR TO USE CITY OF MILWAUKEE CURB DETAILS FOR AREAS IN THE PUBLIC ROADWAY

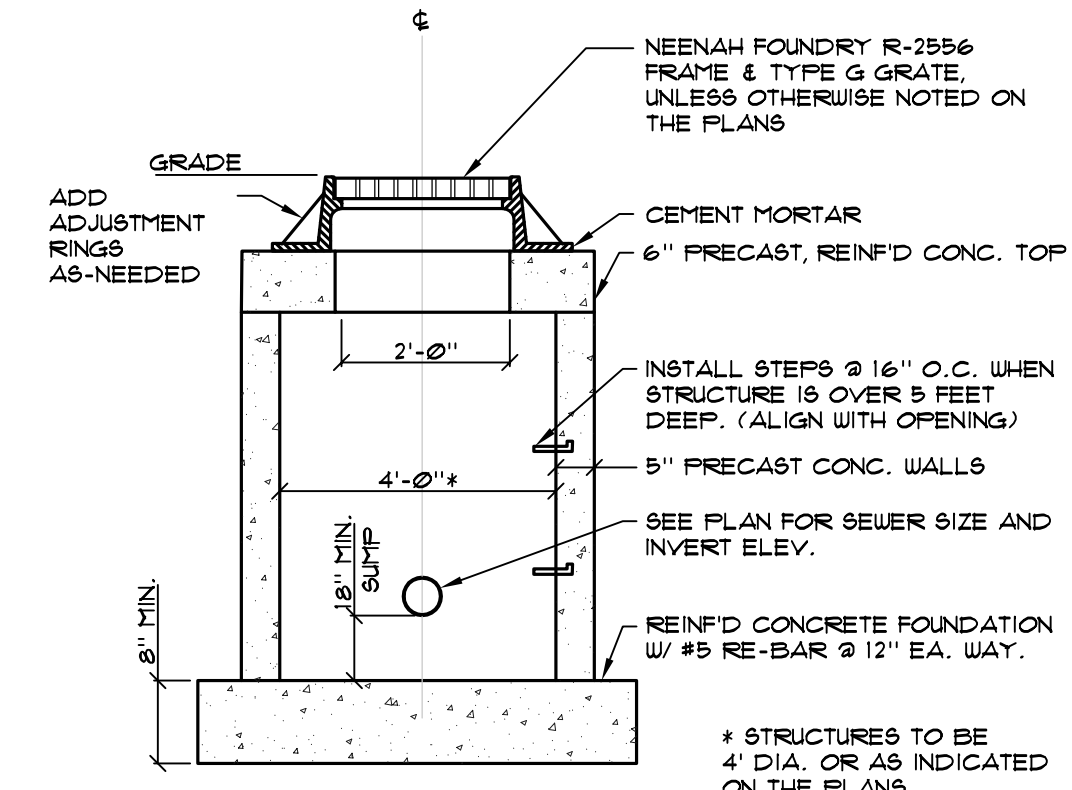
8 18" DEPRESSED CURB 508
 NTS 11/19/10



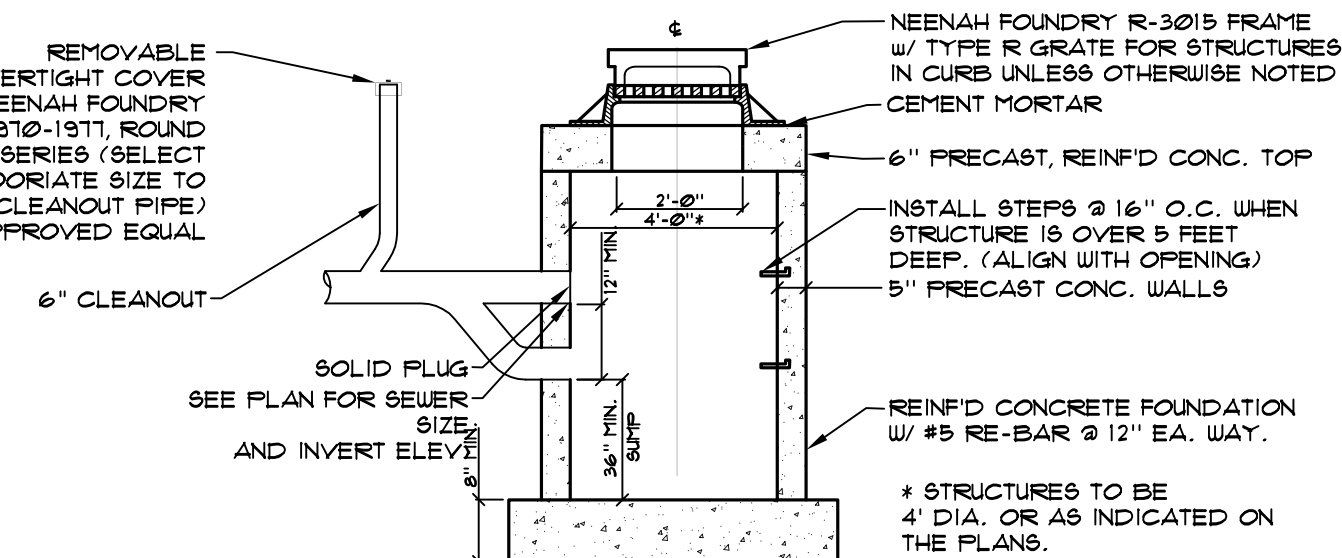
NOTE:
 CONTROL JOINT SPACING SHALL BE A MAXIMUM OF 5' AND CONSTRUCTED IN CONFORMANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS.
 EXPANSION JOINTS SHOULD BE PROVIDED WHERE PAVEMENT ABUTS FIXED OBJECTS.

NOTE:
 SIDEWALK SHALL BE 1' AT DRIVEWAY SECTIONS
 CONTRACTOR TO USE CITY OF MILWAUKEE SIDEWALK DETAIL IN PUBLIC R.O.W.

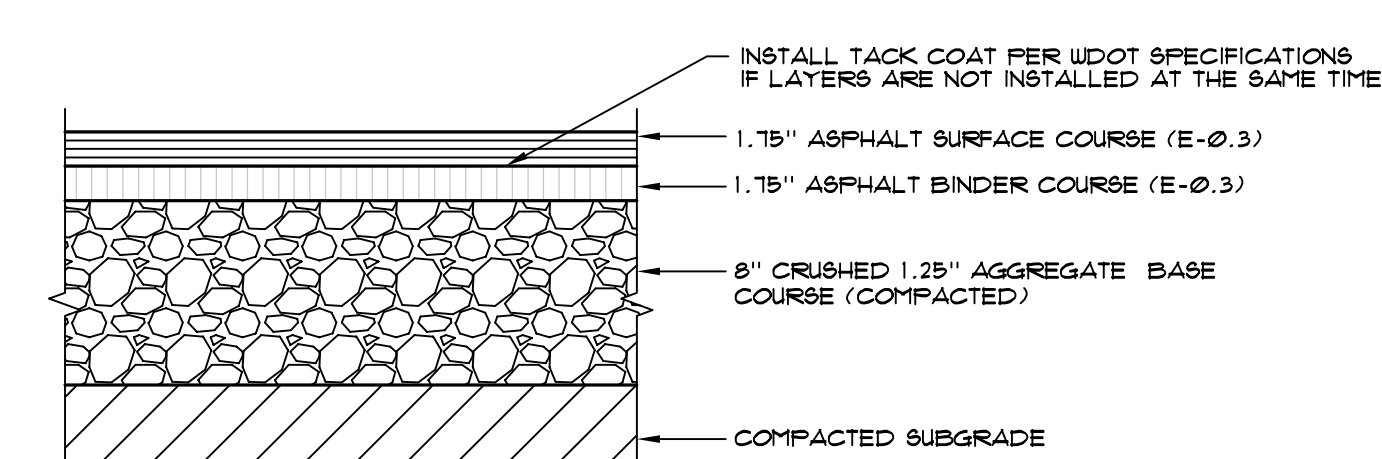
9 CONCRETE SIDEWALK SECTION 524
 NTS 11/19/10



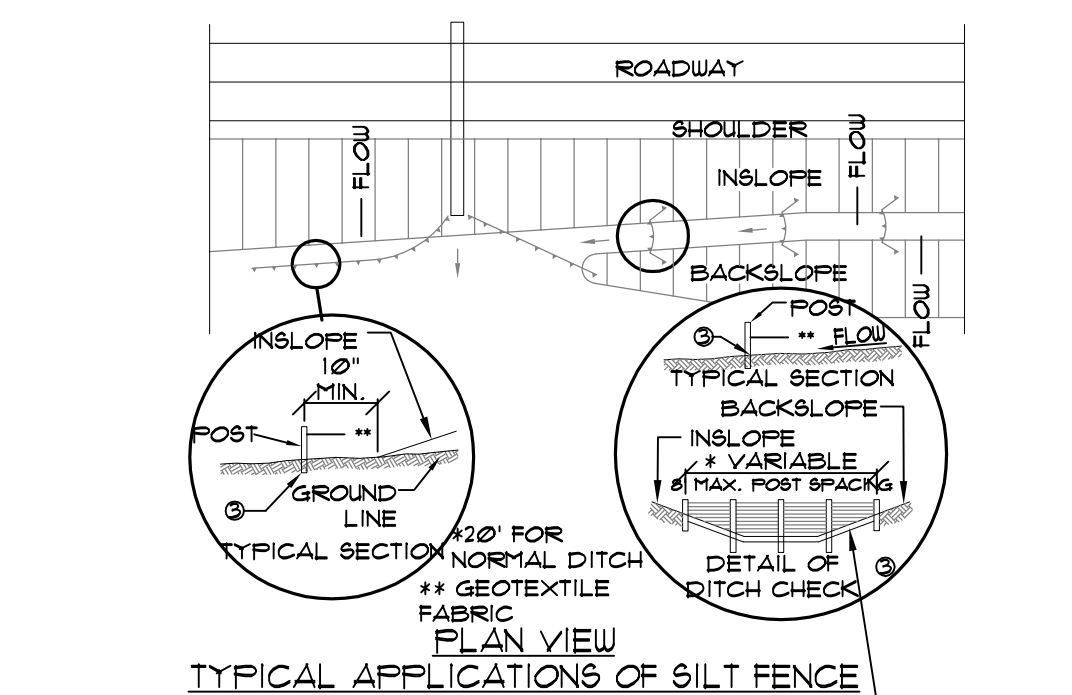
4 CATCH BASIN DETAIL 203
 NTS 11/19/10



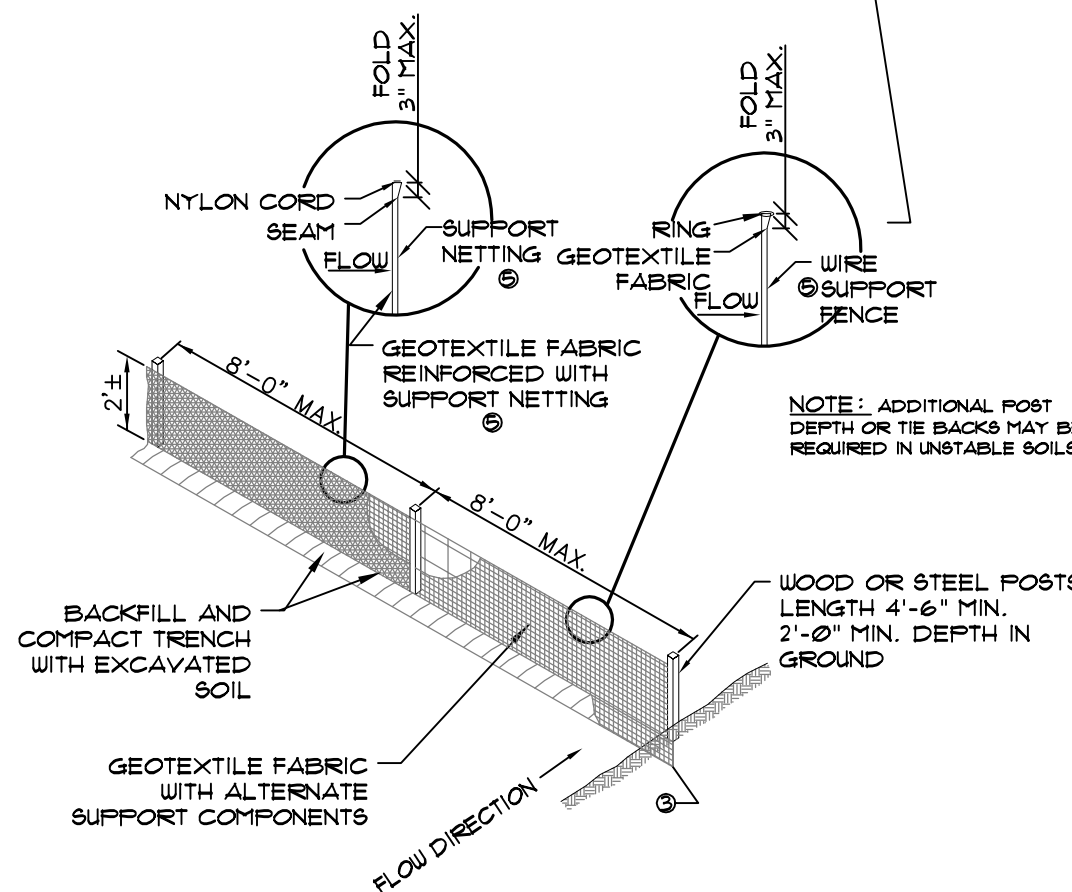
5 TRAPPED CATCH BASIN - CURB 207
 NTS 11/19/10



6 BITUMINOUS ASPHALT SECTION - REGULAR DUTY PAVEMENT 518
 NTS 11/19/10

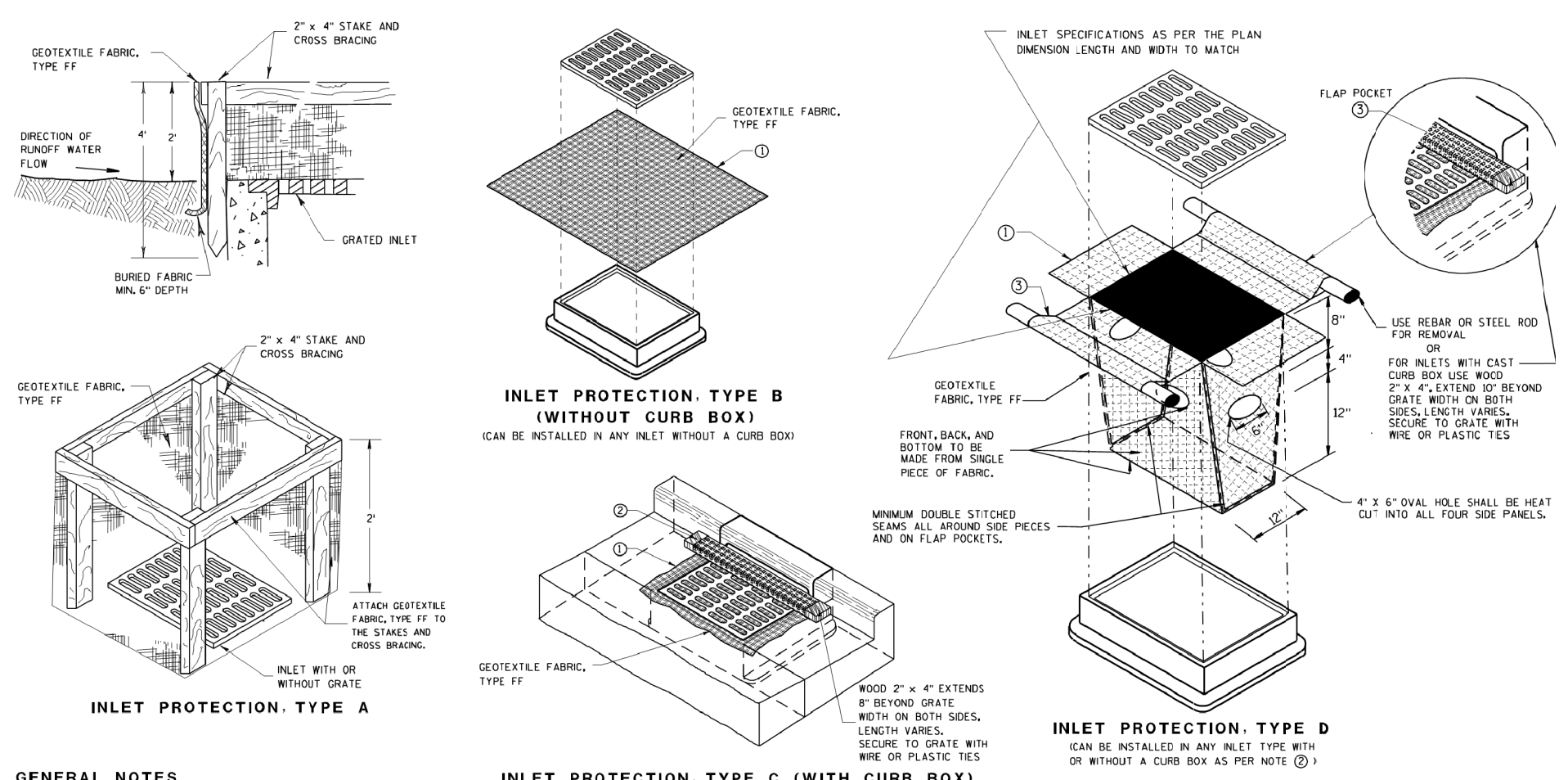


TYPICAL APPLICATIONS OF SILT FENCE



GENERAL NOTES:
 DETAIL OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
 WHEN POSSIBLE THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE, WITH THE ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.
 1 CROSS BRACE WITH 2" x 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
 2 MINIMUM 14 GAGE WIRE REQUIRED FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C-C.
 3 EXCAVATE A TRENCH A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC, FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
 4 WIRE SUPPORT FENCE SHALL BE 14 GAGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C-C.
 5 GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLY-PROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED.
 6 STEEL POSTS SHALL BE STUDDED 'TEE' OR 'U' TYPE WITH A MINIMUM WEIGHT OF 1.28 lbs/lin. ft. (WITHOUT ANCHOR). FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE A MINIMUM SIZE OF 4" DIA. OR 1-1/2" x 3-1/2" EXCEPT WOOD POSTS FOR GEOTEXTILE FABRIC REINFORCED WITH NETTING SHALL BE A MINIMUM SIZE OF 1-1/8" x 1-1/8" OAK OR HICKORY. ALTERNATIVES A AND B ARE EQUAL AND EITHER MAY BE USED.

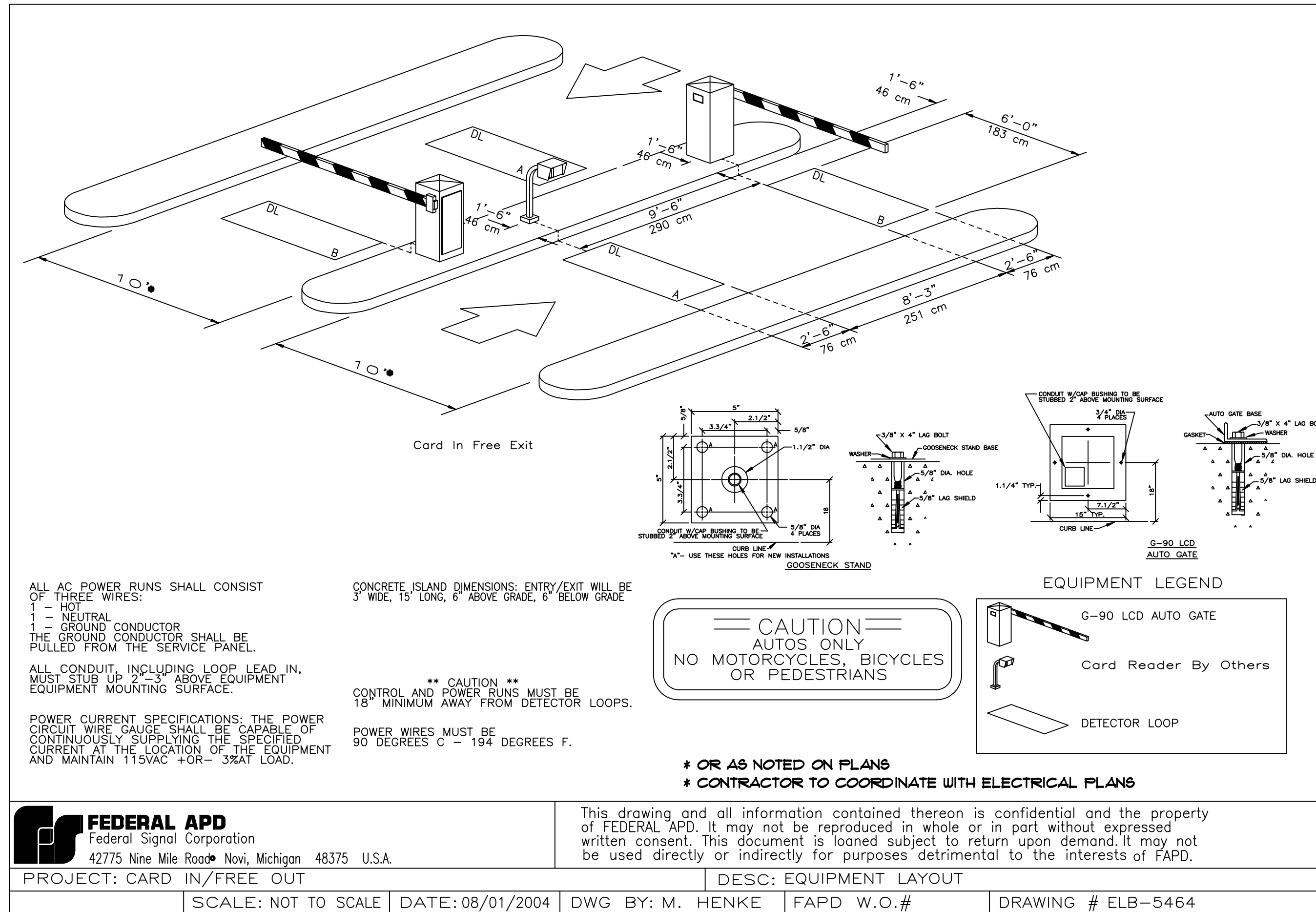
1 SILT FENCE DETAIL 101
 NTS 11/19/10



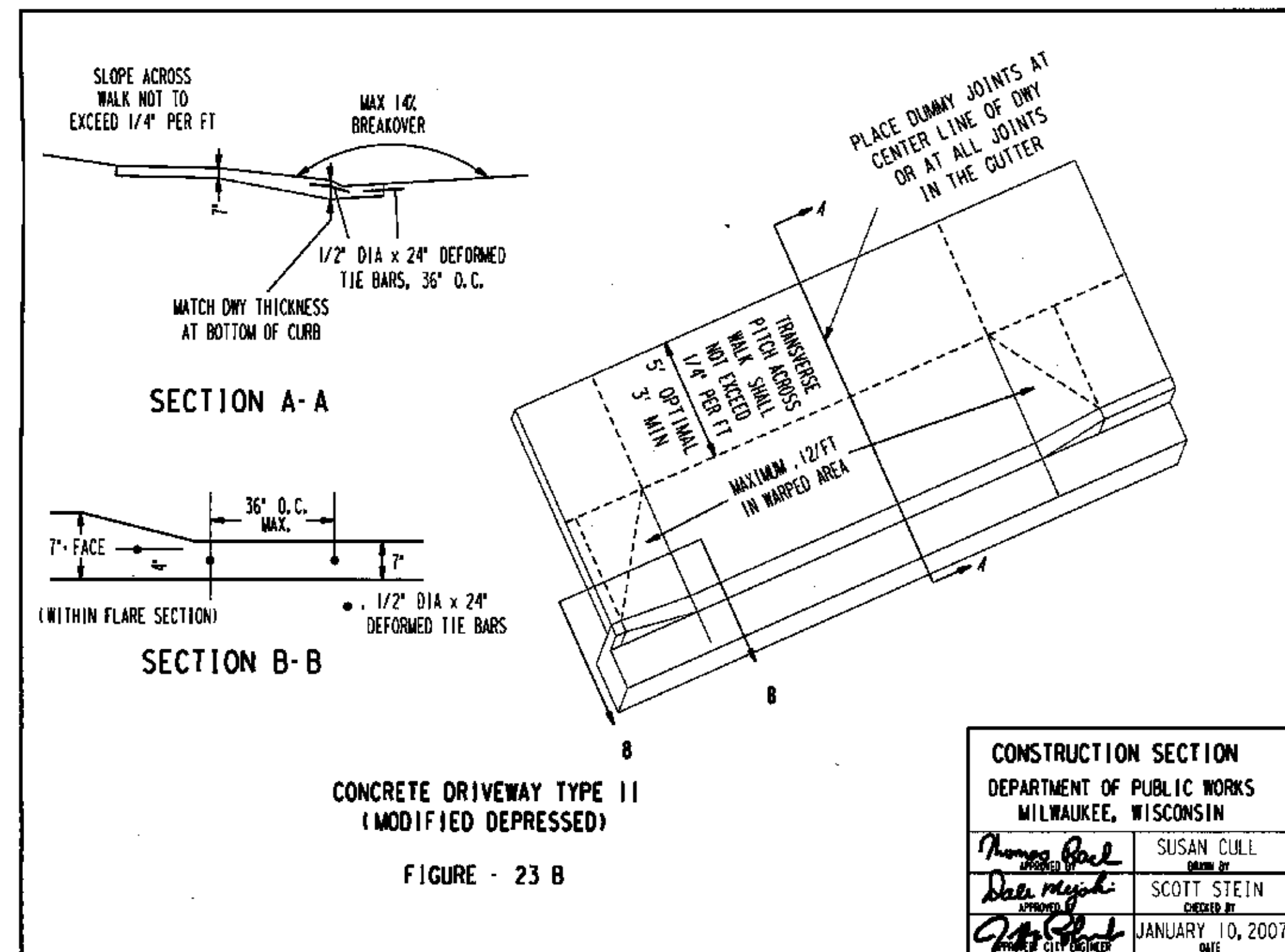
GENERAL NOTES
 MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S DESIGN CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTES.
 WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE JOINTMENT TRAPPED IN THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET, ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
 1 FINISHED SOIL, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10' AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
 2 FOR INLET PROTECTION TYPE C WITH CURB BOX, AN ADDITIONAL #2 OF FABRIC IS SHOWN AROUND THE BOX AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTRANCE HEIGHT OF THE CURB BOX OPENING.
 3 FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD SHAK.

INSTALLATION NOTES
TYPE B & C
 TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
 THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWING FLIP, HAND HOLES OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM THE INLET.
TYPE D
 DO NOT INSTALL INLET PROTECTION TYPE D IN AREAS SMALLER THAN 30" MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
 TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
 THE INSTALLED FABR SHALL HAVE A MINIMUM 50% CLEARANCE BETWEEN THE INLET WALLS AND THE BAG. MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES OF 2", WHERE NECESSARY THE CONTRACTOR SHALL CHECK THE BAG USING PLASTIC ZIP TIES TO AVOID THE 50% CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

2 INLET PROTECTION 103
 NTS 01/19/11

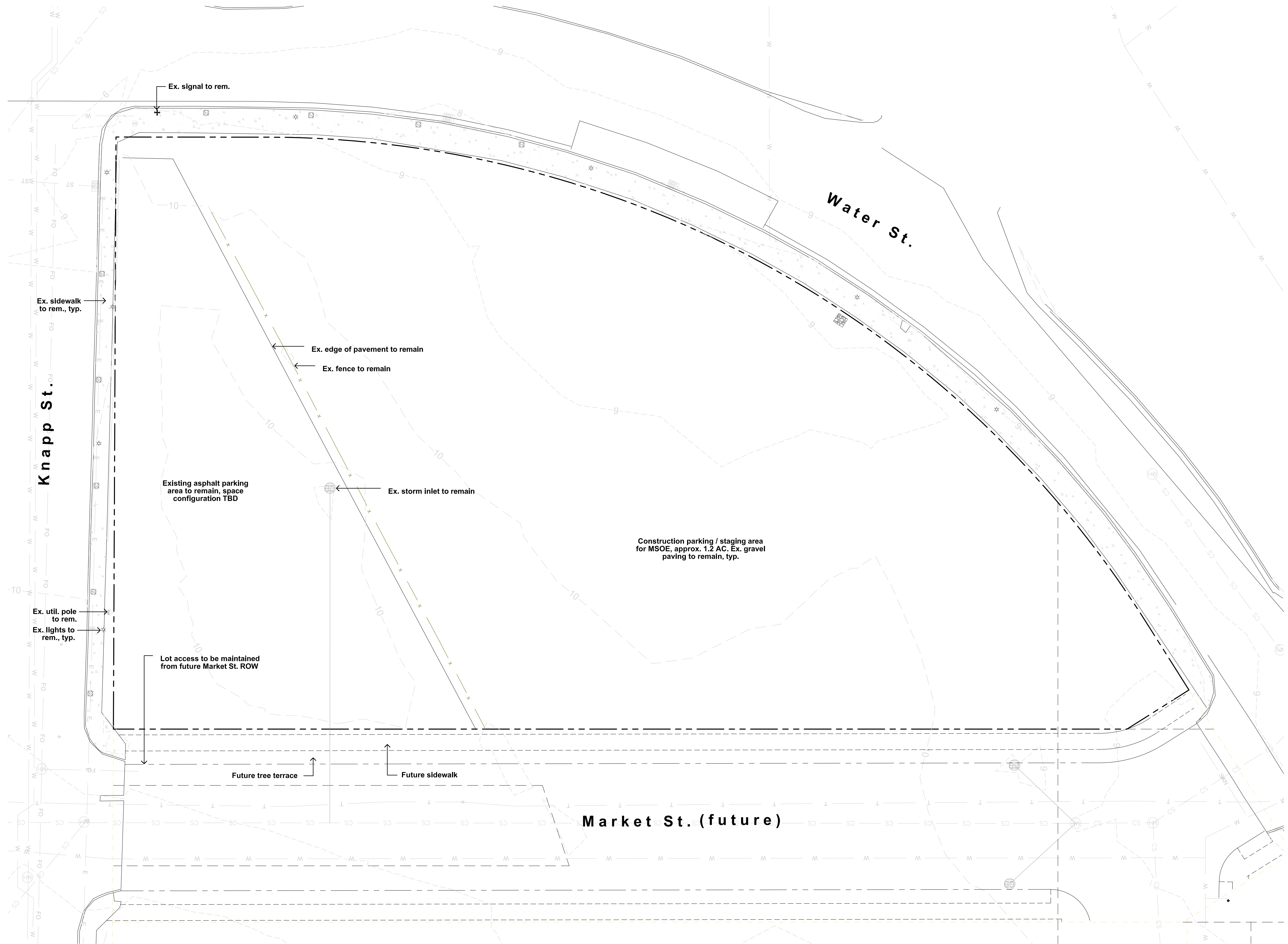


10 ACCESS GATE DETAIL
NTS



9 CONCRETE DRIVEWAY TYPE II
NTS

Date:	Issue Set:

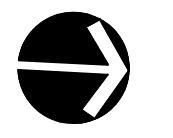


Consultant:

Project:
**M&I Bank / BMO
 Knapp St. Parking Lot**

Location:
 Milwaukee, Wisconsin

Key Plan:



Sheet:
**Landscape Plan
 Phase I - MSOE Const.**

**City DPD Submittal Set
 Not For Construction**

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

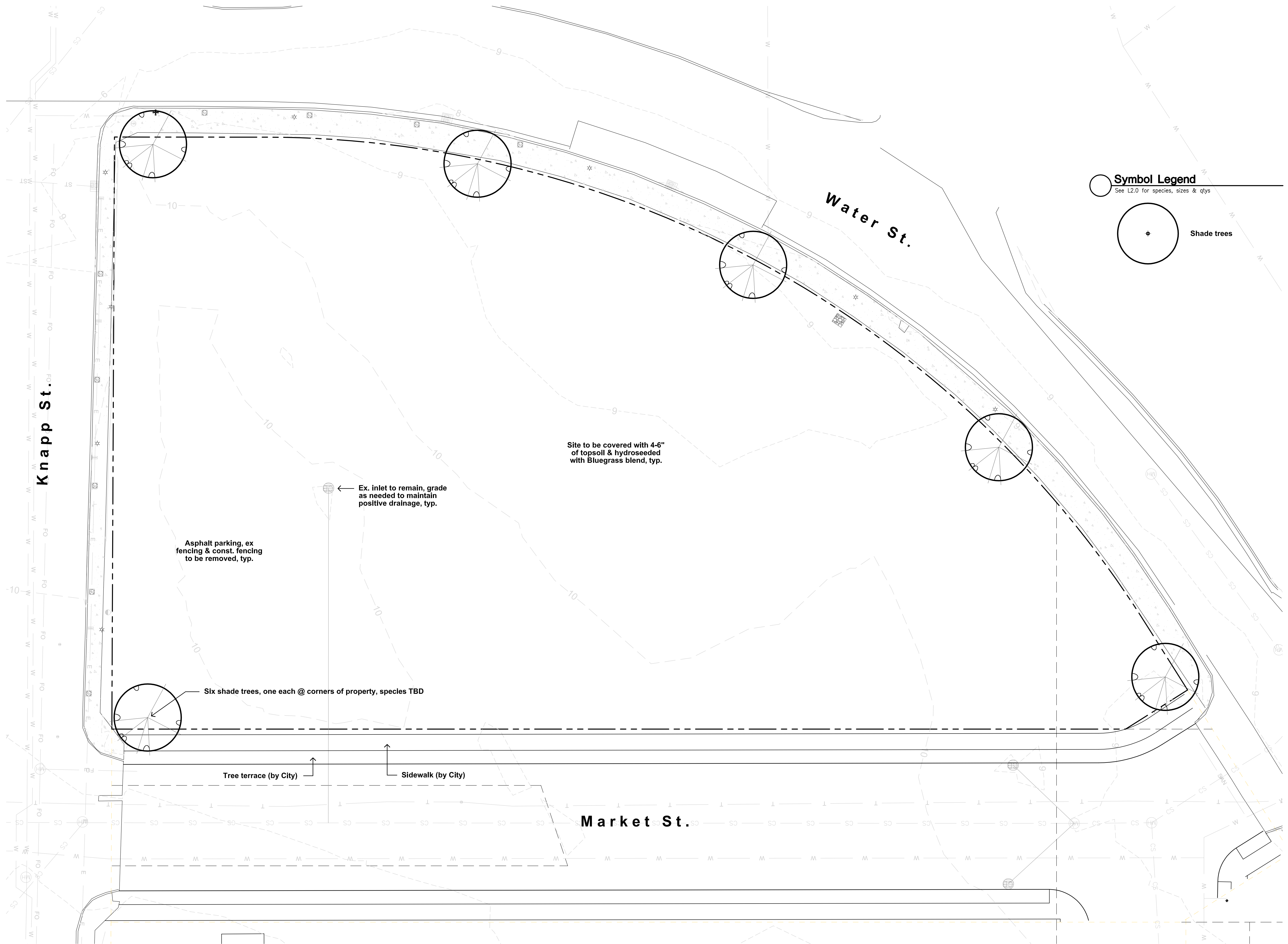
Revisions:

No.	Date	Description

Date:
 January 3, 2012

Project No.: 110034.00 (Owner) Project No.:

Sheet No.:

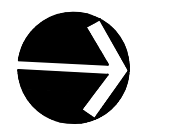


Consultant:

Project:
**M&I Bank / BMO
Knapp St. Parking Lot**

Location:
Milwaukee, Wisconsin

Key Plan:



Sheet:
**Landscape Plan
Phase II - Interim**

**City DPD Submittal Set
Not For Construction**

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

Revisions:
No. | Date | Description:

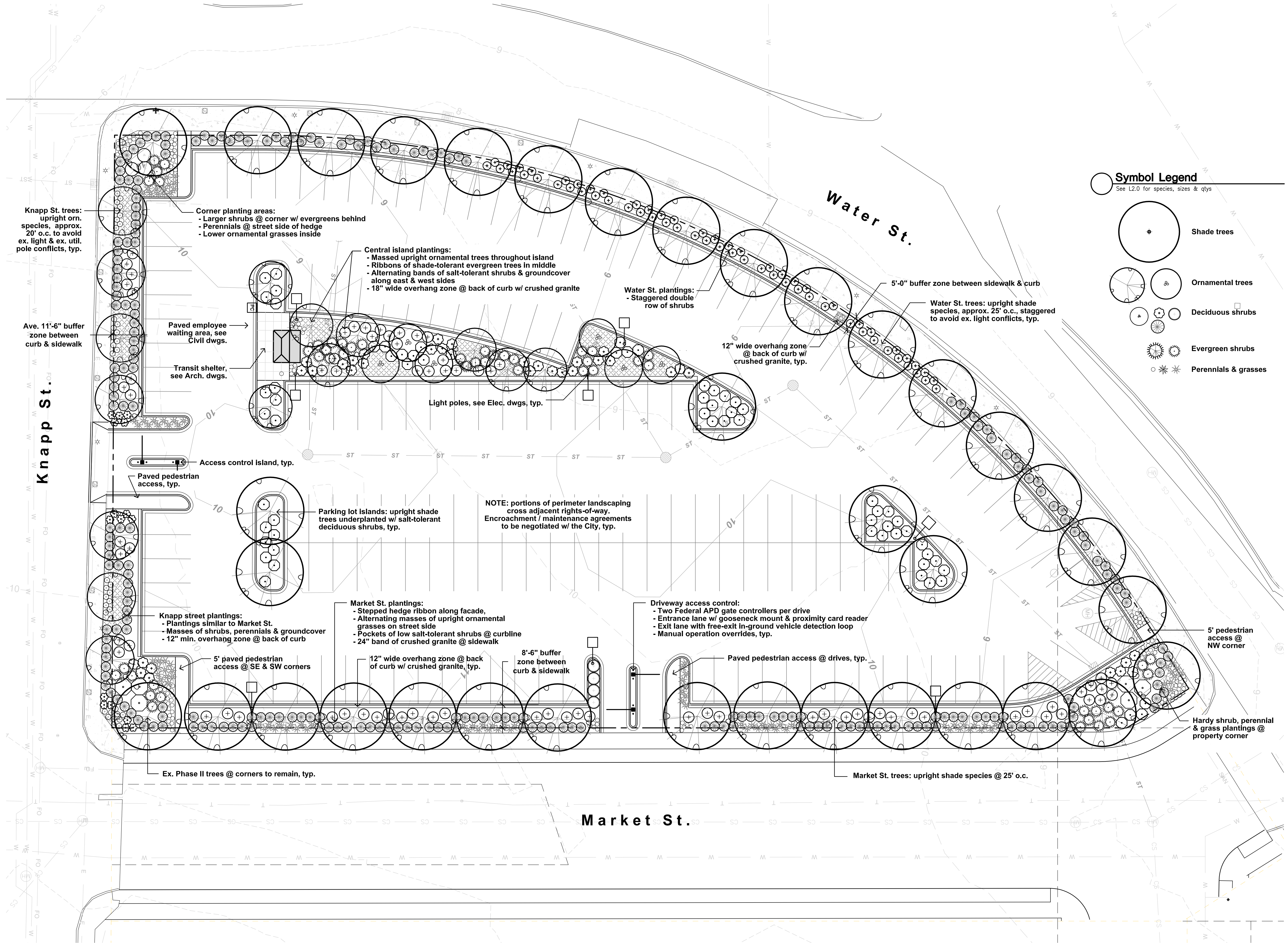
No.	Date	Description

Date:
01/03/2012

Project No.:
110034.00

(Owner) Project No.:

Sheet No.:



Symbol Legend
See L2.0 for species, sizes & qty's

- Shade trees
- Ornamental trees
- Deciduous shrubs
- Evergreen shrubs
- Perennials & grasses

Knapp St. trees: upright orn. species, approx. 20' o.c. to avoid ex. light & ex. util. pole conflicts, typ.

Corner planting areas:
- Larger shrubs @ corner w/ evergreens behind
- Perennials @ street side of hedge
- Lower ornamental grasses inside

Central island plantings:
- Massed upright ornamental trees throughout island
- Ribbons of shade-tolerant evergreen trees in middle
- Alternating bands of salt-tolerant shrubs & groundcover along east & west sides
- 18" wide overhang zone @ back of curb w/ crushed granite

Water St. plantings:
- Staggered double row of shrubs

Water St. trees: upright shade species, approx. 25' o.c., staggered to avoid ex. light conflicts, typ.

Ave. 11'-6" buffer zone between curb & sidewalk

Paved employee waiting area, see Civil dwgs.

Transit shelter, see Arch. dwgs.

12" wide overhang zone @ back of curb w/ crushed granite, typ.

Light poles, see Elec. dwgs, typ.

Access control island, typ.

Paved pedestrian access, typ.

Parking lot islands: upright shade trees underplanted w/ salt-tolerant deciduous shrubs, typ.

NOTE: portions of perimeter landscaping cross adjacent rights-of-way. Encroachment / maintenance agreements to be negotiated w/ the City, typ.

Knapp street plantings:
- Plantings similar to Market St.
- Masses of shrubs, perennials & groundcover
- 12" min. overhang zone @ back of curb

Market St. plantings:
- Stepped hedge ribbon along facade,
- Alternating masses of upright ornamental grasses on street side
- Pockets of low salt-tolerant shrubs @ curbline
- 24" band of crushed granite @ sidewalk

Driveway access control:
- Two Federal APD gate controllers per drive
- Entrance lane w/ gooseneck mount & proximity card reader
- Exit lane with free-exit in-ground vehicle detection loop
- Manual operation overrides, typ.

5' paved pedestrian access @ SE & SW corners

12" wide overhang zone @ back of curb w/ crushed granite, typ.

8'-6" buffer zone between curb & sidewalk

Paved pedestrian access @ drives, typ.

5' pedestrian access @ NW corner

Hardy shrub, perennial & grass plantings @ property corner

Ex. Phase II trees @ corners to remain, typ.

Market St. trees: upright shade species @ 25' o.c.

Zimmerman
ARCHITECTURAL STUDIOS, INC.

2122 West Mount Vernon Avenue | Milwaukee, WI 53233 | zstudios.com
TELEPHONE [414] 476-9500
FACSIMILE [414] 476-8582

Consultant:

Project:
**M&I Bank / BMO
Knapp St. Parking Lot**

Location:
Milwaukee, Wisconsin

Key Plan:

Sheet:
**Landscape Plan
Phase III - Build-Out**

City DPD Submittal Set
Not For Construction

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

Revisions:

No.	Date	Description

Date:
01/03/2012

Project No.: 110034.00 (Owner) Project No.:

Sheet No.:

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L1.2

Consultant:

Project:
**M&I Bank / BMO
 Knapp St. Parking Lot**

Location:
 Milwaukee, Wisconsin

Key Plan:

Sheet:
**Landscape Details,
 Schedules & Notes**

**City DPD Submittal Set
 Not For Construction**

Scale:
 As Shown

Revisions:

No.	Date	Description

Date:
 01/03/2012

Project No.:	(Owner) Project No.:
110034.00	

Sheet No.:

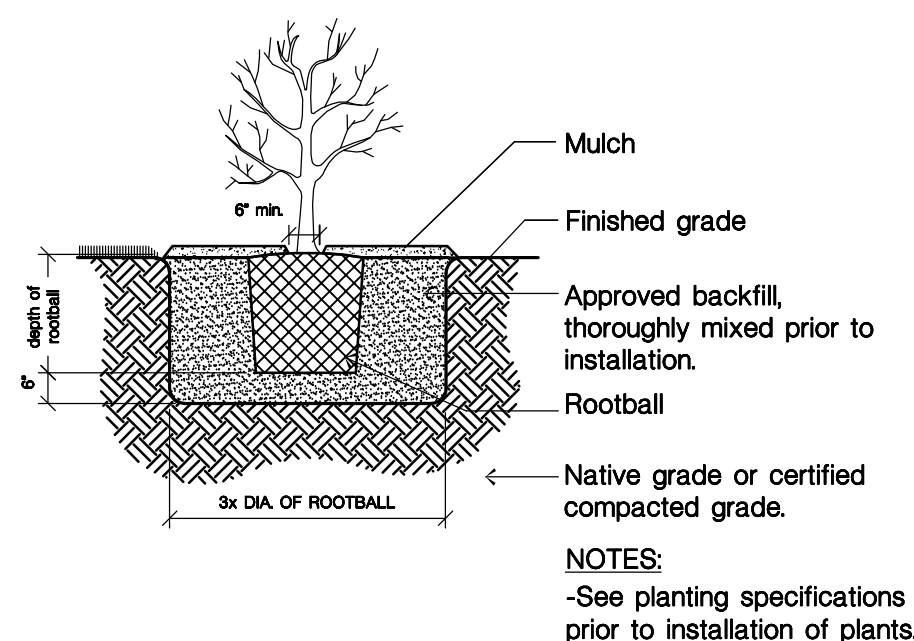
L2.0

General Notes

- All landscape installation & maintenance to conform with all applicable local codes & ordinances, including (but not limited to) City of Milwaukee Municipal Code Ch. 295-405 "Landscaping."
- See Site dwgs. for work limits, scope of construction, hardscape, dimensions &/or construction notes. See Civil dwgs. for all grading, stormwater management, site utilities & erosion control. See Landscape dwgs. for landscape plans, site amenities, details, schedules, notes. See Architectural dwgs. for all construction. See Electrical drawings for all power, circuiting, lighting & access control.
- Contractor shall provide shop drawings and material submittals of **all** hardscape & landscape construction elements shown in plan set for Landscape Architect review prior to construction, including (but not limited to) ornamental fencing & all access control equipment.
- Contractor to provide samples for Landscape Architect's approval on all colors, finishes & materials prior to construction, including (but not limited to) topsoil, gravels, mulches, seed mixes et al.
- Caution: underground utilities are present on site. The Contractor shall verify location of all above- and below-grade utilities, both public & private, prior to commencement of site construction. If unanticipated above- or below-grade conditions are encountered, notify Client & Landscape Architect prior to proceeding. Coordinate with local public utility locating entity as needed.
- Contractor to verify hardscape layout prior to construction. Contact Landscape Architect if discrepancies are found.
- Contractor to limit construction traffic to within work limit lines. All adjacent damage shall be the responsibility of the contractor to restore. See Civil drawings for limits of disturbance.
- All written dimensions supersede scaled dimensions. All dimensions are taken from face of curb, wall or existing building foundations.
- Any work done in the public right-of-way shall require an encroachment & maintenance agreement with the City of Milwaukee. Owner, LA & contractor to coordinate.

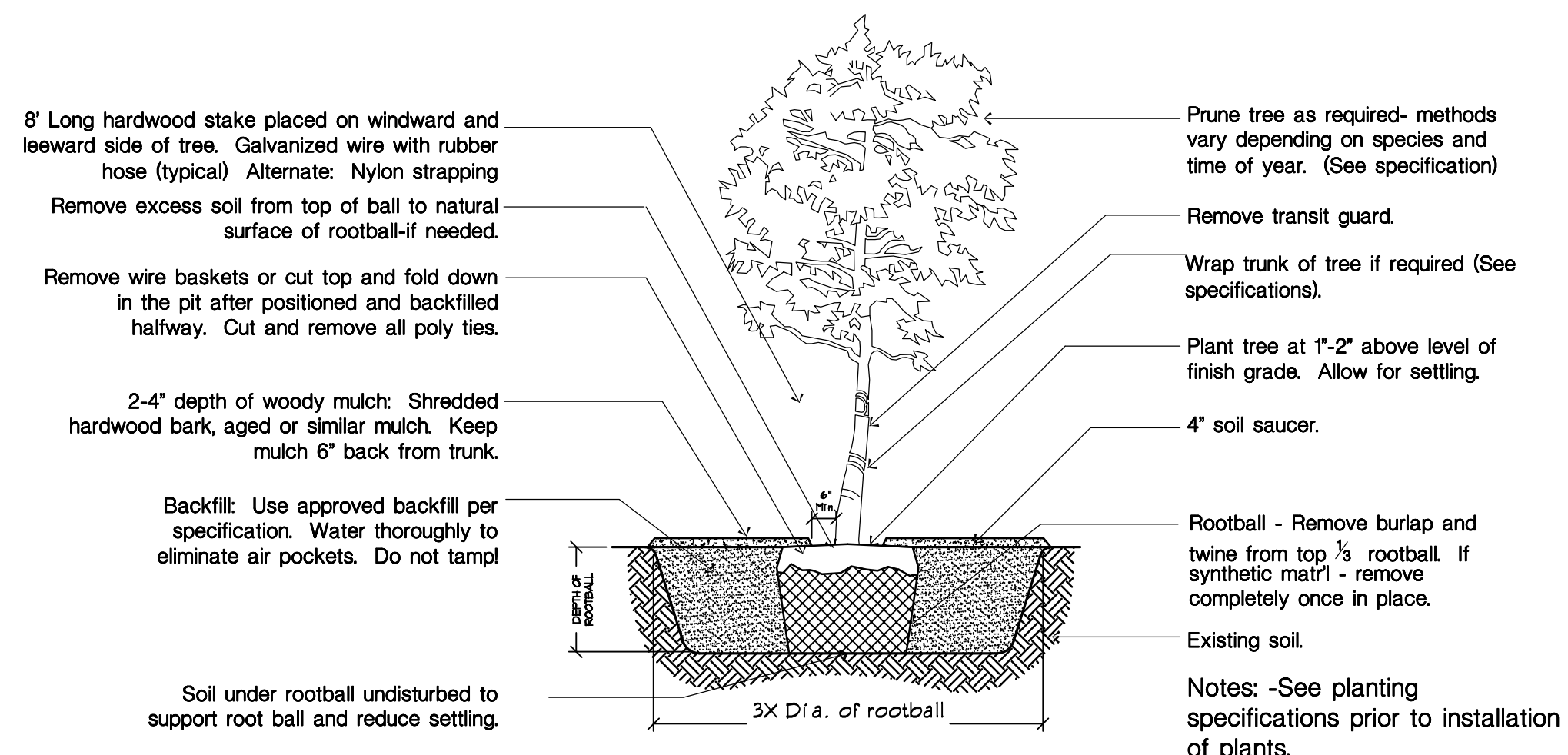
Landscape Notes

- Rough grading & topsoil import/spreading are to be completed by others. Finish grading, seed area and ornamental planting bed preparation shall be the landscape contractor's responsibility. Verify all existing site and grading conditions prior to construction.
- All areas disturbed by site construction shall be fine graded and restored with vegetative cover as shown. See plans for cover types & locations, see specifications for materials & installation.
- Contractor shall verify plant quantities shown on plan. Symbol quantities take precedence over plant keys. Forward a material list to the Landscape Architect prior to construction identifying species, sizes & plant sources to be used on the project.
- All plant materials shall conform to the schedule and shall meet quality requirements outlined in the ANLA "American Standard for Nursery Stock", ANSI Z60.1-2004. The Landscape Architect reserves the right to reject any substandard planting material. Such rejected material shall be removed from the project site immediately.
- All nursery tags/labels shall be left on plant materials until the project punch-list inspection is completed by the Landscape Architect. Untagged materials will be assumed to be deficient.
- All planting beds shall contain screened blended topsoil mix to a min. depth of 18". All lawn areas shall have min. 6". Suitable existing soil may be used & mixed if previously approved. Contractor shall be responsible for obtaining soil tests if existing topsoil is reused. Soil testing results shall include (but is not limited to) soil pH, % organic matter, phosphorus, potassium, calcium & texture (percentages of sand, silt and/or clay.) Remove excessive clay, gravel & stones detrimental to healthy plant growth. Remove all debris greater than 1" diameter.
- Contractor is responsible for ensuring that all tree pits & planting areas drain properly. Notify Landscape Architect if drainage or moisture problems are encountered while planting.
- Contractor shall backfill all trees, shrubs & evergreens with a mix of 1/3 plant starter mix & 2/3 remaining soil. Plant Starter Mix to be provided by Liesener Soils, Cedarburg WI, or approved equal.
- All perennial and groundcover areas shall receive a 3" layer of plant starter mix and perennial starter fertilizer, rototilled into the top 6" of blended topsoil in beds.
- All perennial areas shall receive a 1-2" layer of shredded hardwood bark mulch. Groundcover beds do not receive a cover of shredded bark mulch. Do not allow mulch to touch stems or leaves of perennials! All woody planting areas shall receive a 3" layer. Unless otherwise shown in the plans, no landscape fabric or weed barrier is to be installed.
- Unless otherwise shown, all perennials & shrubs to be planted in triangular arrangements. For plants not shown individually, refer to the spacing shown in the plant schedule.
- All edging to be 3/16" x 4" alum. mill-finish. Permaloc "CleanLine" or "ProSlide", or approved equal.
- Stone mulch areas to contain 2-3" of decorative stone installed over poly weed barrier. Stone to be decomposed/rotted granite or approved equal. Coordinate final material selection with LA.
- Contractor shall provide positive drainage away from all structures for a minimum of 10'.



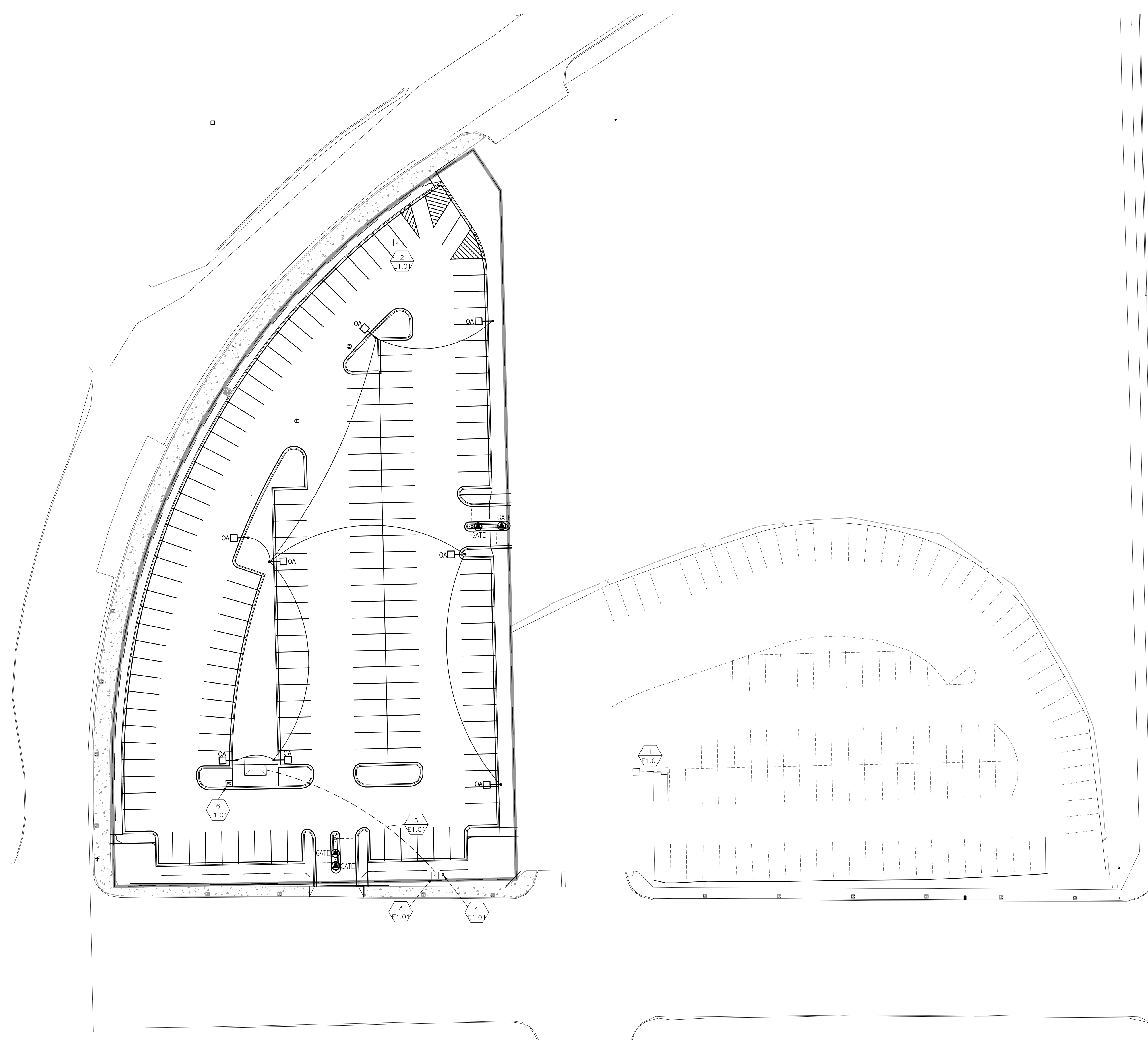
Shrub Planting Detail

Not To Scale



Tree Planting Detail

Not To Scale



PLAN NOTES:

1. EXISTING WE ENERGIES POLE TO BE DEMOLISHED AND REMOVED BY WE ENERGIES.
2. EXISTING POLE AND ABANDONED ELECTRICAL EQUIPMENT TO BE DEMOLISHED AND REMOVED BY CONTRACTOR.
3. EXISTING WE ENERGIES POLE TO REMAIN IN SERVICE.
4. NEW ELECTRICAL SERVICE METER PEDESTAL NEAR EXISTING POLE.
5. UNDERGROUND FEEDER TO ELECTRIC PANEL.
6. PHOTOCCELL CONTROL FOR SITE LIGHTING. MOUNT TO BUS SHELTER CANOPY, FINAL LOCATION, TBD.

ELECTRICAL SITE PLAN
SCALE: 1" = 30' - 0"

Date:	Issue Set:

SECTION 16000
ELECTRICAL WORK

1. GENERAL
- A. The Contractor shall provide all labor and materials to affect a complete electrical installation in accordance with the plans and specifications.
- B. All work shall be in accordance with local, state, international Building, and National Electrical Codes.
- C. All equipment shall be new and UL listed for the intended purpose.
- D. The Contractor shall apply for all permits and pay all fees.
- E. The electrical contractor shall submit a Bill of Material and shop drawings upon request of the A/E.
- F. The Contractor shall conduct final tests to demonstrate compliance with plans and specifications. Owner shall be present for demonstration of all special systems.
- G. All work shall be guaranteed for one year after date of final acceptance.
- H. All electrical equipment shall be indexed. Provide nameplates describing panel name, usage, voltage, phase, # of wires, and equipment. Install new panel directories (typed, not free hand).
- I. Cutting, Patching and Refinishing: The Contractor shall provide all openings in new and existing construction except where noted on the plans.
The Contractor shall do all patching and refinishing of existing surfaces.
- J. Definitions:
1. A/E: Architect and/or Engineer
 2. Provide: Furnished, installed, wired and connected by the Contractor.
 3. Contractor: The person or group responsible for project construction.
- K. Demolition, Renovation and Disposition of Existing Equipment:
1. All work required shall be done in a manner and time acceptable to the Owner and shall be acceptable as to time and duration.
 2. Existing electrical equipment not otherwise noted, or in conflict with construction, shall be removed and/or relocated as indicated on the drawings, as directed or required. Remove all electrical equipment released from service as a result of construction, and no equipment removed shall be reused except as specifically directed on the drawings or elsewhere herein. All electrical equipment, apparatus and hardware removed and not reused, and not retained by the Owner, shall become the property of the contractor and shall be removed from the site.
- L. Shop Drawings and Maintenance Manuals:
1. Furnish a minimum of 5 copies of shop drawings for approval. Shop drawings of system equipment and common equipment shall be submitted in a bound brochure with an index sheet describing contents therein.
 2. All shop drawings when submitted shall bear the contractor's name, date and approval. Shop drawings will not be reviewed by the A/E if this requirement is not met.
 3. Shop drawings shall be submitted electronically in pdf format.
- M. Warranty:
The Contractor, in full knowledge of requirements of the contract documents relative to electrical work, guarantees that the electrical installation has been done in full accord with the same. Additionally, the Contractor shall warrant and maintain, remedy and/or replace at his expense any work or materials which may become defective within one year from date of substantial completion, provided such defects are not due to "Acts of God", or abuse/misuse by agents of the owner.
2. RACEWAY
- A. Raceway shall be concealed wherever possible.
- B. Use rigid steel 1/2" minimum for all conduit above grade or concrete. Use liquid tight and greenfield where required.
- C. Conduit installed in concrete or underground shall be heavy wall schedule 40 PVC. Install no conduit larger than 3/4" in floor slab.
- D. Couplings, connectors and fittings shall be standard devices to properly attach conduit to outlet boxes, panel enclosures, all steel, rain tight, and concrete type, specifically designed for the application and bearing the UL label.
- E. Outlet boxes shall be 4" square minimum, 2-1/2" deep unless noted otherwise.
- F. Exterior underground conduit shall be heavy wall Schedule 40 PVC.
1. Exterior underground conduit shall be buried at a depth of not less than 30 IN below grade. Provide conduits or ducts terminating below grade with means to prevent entry of dirt or moisture. Underground conduits shall slope 1/8" per foot for proper drainage. Conduits shall drain toward manholes and junction boxes, not the electrical equipment.
3. CONDUCTOR
- A. All conductors shall be stranded copper with Types TW, THHN or THW (No. 12 and larger) 600 volt insulation.
4. ELECTRIC SERVICE AND DISTRIBUTION EQUIPMENT
- A. Provide temporary service in the area of construction for all trades. Include local lighting and 120 volt power. Cost of power shall be paid by Owner.
- B. Present permanent services, if existing, shall remain in place; otherwise locate as shown on plans. New feeders and panel boards shall be provided in accordance with drawings. Provide new distribution panels complete with circuit breakers with AIC rating as indicated.
- C. Grounding shall be in accordance with Code.
- D. Safety switches shall be heavy duty (HD) type fused or unfused as required and rated at 200kaic.
5. TRANSIENT VOLTAGE SURGE SUPPRESSION
- A. The unit shall be rated for service entrance Category C location per ANSI/IEEE C62.41-1991, and for 150,000 amperes per phase. Phase should be measured between (L-N & L-C). The TVSS shall provide protection modes to L-N, L-G, L-L, N-G. The unit shall have indicator status lights for the TVSS device, verifying proper operation. The internal design of the unit shall incorporate sine wave tracking and have EM/RFI filtering for high frequency purposes. Acceptable manufacturer's: Current Technology TG series or Intermatic PG or SG series.
- B. The specified system shall be installed no further than twelve (12) inches in total wire lead length distance from the panel board it is protecting, and shall avoid any unnecessary bends. Insulated conductors shall be provided for all necessary power and ground connections. System shall be complete, including status indicator lights providing , with independent protection circuit status.
- C. Manufacturer shall provide a product warranty for 5 YEARS from date of installation. Warranty shall cover unlimited replacement of system components during the warranty period.
6. WIRING DEVICES
- A. Verify color of all devices and faceplates with Architect. Adjustment in color shall be made in the field without additional compensation.
- B. Local Switches:
1. Hubbell 1221, 1223, 1224 series with single pole, three-way and four-way, as required.
- C. Receptacles:
1. In General: All receptacles shall be rated for the capacity and characteristics of the equipment served and shall be complete with one additional pole for grounding.
 - 2) 20 Amp 125 Volt Duplex: Hubbell 5352.
 - 3) Ground Fault Interrupter: 15 Amp, with built-in ground fault interruption, 5 mA sensitivity, LED indicator light ("ON" when operable) and reset, UL 2003 compliant. Duplex, Leviton 8598.
 - 4) TVSS 1.3ko 20 Amp 125 Volt Duplex with light and alarm: Hubbell 5362S.
1. All connections to wiring devices must be made by the binding screws only.
- c. Mounting height:
- 1) Receptacles: 18" up
 - 2) Switches: 48" up
 - 3) Receptacles Above Counters: 6" up above counter
- D. Furnish combination, multi-gang and special plates as required.
1. In general: P&S p-line smooth thermoset plastic.
 2. Unfinished areas: Satin Stainless Steel with plate screws of similar material, Sierra Type 302.
 3. Weatherproof: Of type indicated by symbol on the drawings with Hubbell GF5362, 20 amp 125 volt ground fault receptacle with while-in-use cover intermatic WP1000 series.

7. LIGHTING FIXTURES AND LAMPS
- A. Provide fixtures complete with initial fill of lamps as scheduled.
- B. Refer to Lighting Fixture Schedule on plans.
8. MOTOR WIRING
- A. Applicable motors furnished under General Construction, Heating, Ventilating, Air Conditioning and Plumbing branches of the work. Motor starters and controllers shall be erected by the Contractor in an approved manner at locations established by contractor supplying the equipment. The Contractor shall extend motor circuit connections in each instance. All line voltage motor control wiring from starter to motor controllers and all incidental line voltage motor control wiring from starter to motor controllers and all incidental line voltage control wiring shall be done by the Contractor. Low voltage wiring (less than 120 volts) shall be by mechanical trade contractor. Provide HP rated motor disconnect switches as required by Code. Provide NEMA 1 enclosures in general; NEMA 3 enclosures wherever exposed to weather. The Contractor shall verify that all materials are provided for a complete electrical installation.
9. SPECIAL OUTLET OUTLETS
- A. Special Purpose outlet shall be located as required by equipment. The Contractor shall be responsible for verifying electrical characteristics of the actual equipment being furnished for the project prior to installation of outlets. The Contractor shall verify that all materials are provided for a complete electrical installation.
10. EXCAVATION
- A. The contractor shall perform all excavation, and furnish and install all cable and make terminals as detailed on drawings.
- B. Measurements: The contractor shall lay out this work and make all measurements required to fit his work to field conditions. He shall take all levels necessary and establish proper grade. The contractor shall verify all dimensions at the site and be responsible for their accuracy and coordination with all existing trees, shrubs, etc.
- C. Excavation shall include all necessary clearing of the site, all grubbing and all wet, dry rock excavation and all incidental work such as sheet piling, shoring, plumbing and bailing, all transportation and backfilling.
- D. The Contractor shall obtain final grades from the owner before proceeding with trench work.
- E. Where the earth trench meets conduit either above or below the trench line, the trench shall be sloped at a grade of not more than two inches per foot to meet the conduit. Do not bend conduit to meet the trench.
- F. The material excavated from the trench may be stored or soil banked adjacent to trench. During the period that trenches may be left open, the trench shall either be covered or barricaded with warning lights to the satisfaction of the engineer.
- G. The trench shall be cleared of large stones, or large objects such as described under "Backfill". The trench bed shall be relatively clean, of debris and firm.
- H. During excavation, the Contractor shall exercise care to avoid injuring to existing trees, utilities, connections, etc. The expense of repairing any damage and restoring same shall be borne by the Contractor.
- I. All conduit shall drain to junction boxes. No pockets shall be permitted in conduit lines.
11. BACK FILL
- A. The excavated material adjacent to the trench may be used as back fill except for hard chunks of earth, broken concrete, bricks, stones, or other objects larger than 2" in diameter which might damage the duct system.
- B. Additional back fill may be required to supplement excavated material in order to restore trench to meet precut condition and allow for setting.
- C. Back fill shall be firmly tamped and solidly packed. However, do not tamp on top of PVC conduit.
- D. Inspect installation after 30 days with the Owner and perform such additional work as necessary and directed by Owner.

BIDDING PROCEDURES

- A. Base Bid:
1. Base Bid shall include all labor required and all materials and equipment as shown on the contract drawings and heretofore specified.
 2. Base Bid shall not include any conditions or qualifying statements, shall be in strict accordance with specification requirements and shall be based upon the installation of materials and equipment as specified.





ABBREVIATIONS

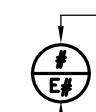

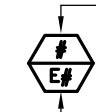



A/E	ARCHITECT/ENGINEER	I	INSTALLED
AF	AMP FUSE	IU	INTEGRAL TO UNIT
AFC	AVAILABLE FAULT CURRENT	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LIG	LAY-IN GRID
ARCH	ARCHITECT	LOC	LOCATION
AFG	ABOVE FINAL GRADE	LTG	LIGHTING
AR	AS REQUIRED	MAG	MAGNETIC STARTER
AS	AMP SWITCH	MAN	MANUAL STARTER
B	JUNCTION BOX	MC	MECHANICAL CONTRACTOR
BKR	BREAKER	MCB	MAIN CIRCUIT BREAKER
BFG	BELOW FINAL GRADE	MLO	MAIN LUGS ONLY
C	MOUNTED 6" ABOVE COUNTER	MSB	MAIN SWITCHBOARD
CAB	CABINET	MTD	MOUNTED
CB	CIRCUIT BREAKER	NU	NEAR UNIT
cd	CANDELA	NIC	NOT IN CONTRACT
CXT	CIRCUIT	O	OTHERS
CLG	CEILING	OC	ON CENTER
COMB	COMBINATION STARTER W/DISCONNECT SWITCH	ORS	OVER RIDE SWITCH
CONC	CONCRETE	OU	ON UNIT
CP	CONTROL PANEL	P	POLE
CS	COMBINATION STARTER/DISC. SWITCH	PC	PHOTOCELL
D	DISCONNECT SWITCH	PEND	PENDANT
DISC	DISCONNECT SWITCH	PLBG	PLUMBING CONTRACTOR
DN	DOWN	PNL	PANEL
DNLT	DOWN LIGHT	PB	PUSH-BUTTON
EWC	ELECTRIC WATER COOLER	R	RECEPTACLE
E.C	ELECTRICAL CONTRACTOR	REC	RECESSED
ELEV	ELEVATION	SS	SWITCH STATION
EMT	ELECTRICAL METALLIC TUBING	SURF	SURFACE
ENT	ELECTRICAL NON-METALLIC TUBING	SUSP	SUSPENDED
ER	EXISTING TO BE REMOVED	SW	SWITCH
EXP	EXPOSED	TC	TIME CLOCK
EXR	EXISTING IN NEW LOCATION	TCC	TEMPERATURE CONTROL
EX	EXISTING TO REMAIN		CONTRACTOR
F	FURNISHED	TYP	TYPICAL
FKT	FIXTURE	UM	UNIT MANUFACTURER
FLUOR	FLUORESCENT	VER	VERIFY
G.C.	GENERAL CONTRACTOR	VFD	VARIABLE FREQUENCY DRIVE
GFI	GROUND FAULT INTERRUPTING	W	WIRED
GRC	GALVANIZED RIGID CONDUIT	WP	WEATHERPROOF
GYP	GYPNUM BOARD	XFMR	TRANSFORMER
HOA	HAND-OFF-AUTO SELECTOR SWITCH		
HP	HORSEPOWER		
HVAC	HEATING, VENTILATING, AND		
HV	AIR CONDITIONING CONTRACTOR		
HW	HEAVYWALL		

GENERAL RENOVATION/DEMOLITION NOTES:

1. ELECTRICAL DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE. FOR AREAS BEING REMODELED, WORK SHOWN REFLECTS INFORMATION SHOWN ON AS-BUILT PLANS AND FIELD OBSERVATION; IT IS NOT GUARANTEED 100% ACCURATE. THIS CONTRACTOR MUST FIELD VERIFY CONDITIONS AND MAKE NECESSARY ADJUSTMENTS WITHOUT EXTRA COSTS TO THE PROJECT TO SUIT ACTUAL NEEDS.
2. MAINTAIN THE INTEGRITY OF ALL SYSTEMS AFFECTED BY THE REMOVAL OR ADDITION OF ELECTRICAL DEVICES AND CONTROLS IN REMODELED AREAS.
3. CIRCUITS INDICATED ARE INTENDED TO DENOTE WHICH DEVICES/FIXTURES ARE TO BE WIRED TO A COMMON CIRCUIT BREAKER, AND NOT ITS POSITION IN THE PANEL. UTILIZE RELIEVED/SPARE CIRCUIT BREAKER MOUNTING SPACES, PROVIDE CIRCUIT BREAKERS AS REQUIRED. REBALANCE LOADS BETWEEN PHASES (MAX. 7.5X) UPON COMPLETION OF WIRING.
4. ALL EXISTING DEVICES WHICH ARE NOT SHOWN ON THESE DRAWINGS OR DIRECTED BY A/E SHALL BE REMOVED.
5. EXACT LOCATION OF SPECIAL PURPOSE OUTLETS SHALL BE VERIFIED IN FIELD. VERIFY SPECIFIC WIRING REQUIREMENTS WITH VENDORS' DRAWINGS/INSTRUCTION. COORDINATING ELECTRICAL WORK WITH VENDOR AND OTHER TRADES.
6. INCLUDE FISH WIRE IN ALL NON-POWER CONDUITS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DISCONNECTING POWER AND REMOVING THE EXISTING FIXTURES FOR REUSE. ANY FIXTURE(S), ELECTRICAL DEVICES, NOT INDICATED TO BE REUSED SHALL BE PROPERLY DISPOSED OF AND/OR IN ACCORDANCE WITH THE SPECIFICATIONS.
8. VERIFY EXACT LOCATION OF LIGHTING FIXTURES IN THE FIELD TO AVOID CONFLICT WITH MECHANICAL EQUIPMENT, DUCT WORK, AND PIPES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING AND AIMING ALL FIXTURES TO THE OPTIMUM DISTRIBUTION AND OWNER'S SATISFACTION.
10. THE CONTRACTOR SHALL DO THE NECESSARY DEMOLITION WORK IN THE AFFECTED AREAS INCLUDING THE REMOVAL OF LIGHTING FIXTURES, LAMPS, WIRING, ACCESSIBLE CONDUIT, AND ELECTRICAL EQUIPMENT. IN ADDITION, PRECEDING DEMOLITION WORK, HE SHALL DE-ENERGIZE ALL CIRCUITS IN THE AFFECTED AREAS AND WHERE WIRING IS ROUTED THROUGH THESE AREAS SERVING AREAS OF THE BUILDING REMAINING IN SERVICE, PROVIDE TEMPORARY AND/OR PERMANENT WIRING AS REQUIRED. ALSO, WHERE NECESSARY TO MAINTAIN SERVICE IN OTHER AREAS, PROVIDE NECESSARY AND REQUIRED SOURCES OF POWER AND TEMPORARY WIRING. REMOVE ALL CONDUIT AND WIRING OF EQUIPMENT BEING REMOVED AND/OR ABANDONED BACK TO SOURCE.
11. A/E REVIEW OF REDUNDANT SUBMITTALS FROM BACKUP, SECOND SOURCE OR REPLACEMENT SUPPLIERS/CONTRACTORS IS CONTRACTOR'S EXPENSE.
12. A/E SERVICES RELATED TO A SUBSTITUTION OR CHANGE PROPOSED BY THE CONTRACTOR ARE THE CONTRACTOR'S EXPENSE. DO NOT RELY ON ACCEPTANCE IN PREPARING BIDS. THE A/E MAY REJECT THESE WITHOUT CAUSE.

SYMBOLS

-  POLE MOUNTED LIGHT FIXTURE - SIDE ARM
-  ELECTRICAL POLE
-  SPECIAL PURPOSE OUTLET - SEE SCHEDULE.
-  PHOTOCELL.

- MISCELLANEOUS SYMBOLS
-  INDICATES DETAIL NUMBER
 -  SEE DETAIL
 -  INDICATES SHEET NUMBER
 -  INDICATES NOTE NUMBER
 -  SEE NOTE
 -  INDICATES SHEET NUMBER

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Project:
M&I WATER STREET PARKING

Location:
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MUNICIPAL REVIEW SET
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DATE: DECEMBER 2, 2011

Scale: _____

Sheet:
SYMBOLS, ABBREVIATIONS AND NOTES

Date:	Issue Set:

Date:
01/03/2012

Project No.:
011-0034.00

Sheet No.:

SHEET INDEX	
E1.01	SYMBOLS, ABBREVIATIONS, AND NOTES
E1.01	ELECTRICAL SITE PLAN
E1.02	SITE PHOTOMETRIC CALCULATION
E2.01	ELECTRICAL SCHEDULES AND DETAILS.

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