ONSITE CIVIL ENGINEERING INFRASTUCTURE PLANS

FOR

901 NORTHVIEW ROAD

WAUKESHA, WISCONSIN

PLANS PREPARED FOR

PREMIER DESIGN + BUILD GROUP

1000 W. IRVING PARK ROAD, STE 200
ITASCA, IL 60143

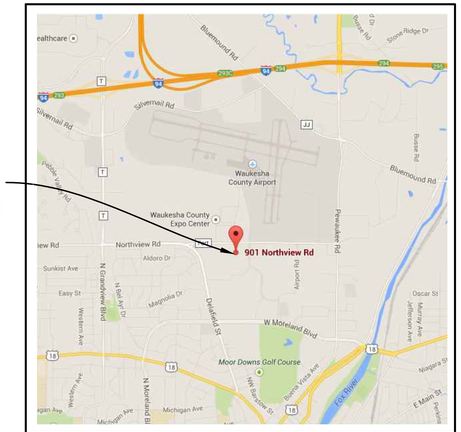
LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE		
STORM MANHOLE		
CATCH BASIN		
INLET		
PRECAST FLARED END SECTION		
CONCRETE HEADWALL		
VALVE VAULT		
VALVE BOX		
FIRE HYDRANT		
BUFFALO BOX		
CLEANOUT		
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
WATER MAIN	w	w
UTILITY CROSSING		
GRANULAR TRENCH BACKFILL		
LIGHTING		
ELECTRICAL CABLE	E	E
ELECTRICAL TRANSFORMER OR PEDESTAL	E	E
POWER POLE		
POWER POLE WITH LIGHT		
GUY WIRE		
STREET SIGN		
GAS MAIN	G	G
TELEPHONE LINE	T	T
CONTOUR	749	749
SPOT ELEVATION	×(750.00)	×750.00
WETLANDS		
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		
DITCH OR SWALE		
DIVERSION SWALE		
OVERFLOW RELIEF ROUTING		
TREE WITH TRUNK SIZE		
SOIL BORING		
TOPSOIL PROBE		
FENCE LINE, TEMPORARY SILT		
FENCE LINE, WIRE		
FENCE LINE, CHAIN LINK OR IRON		
FENCE LINE, WOOD OR PLASTIC		
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE		

ABBREVIATIONS

BL	BASE LINE
C	LONG CHORD OF CURVE
C & G	CURB AND GUTTER
CB	CATCH BASIN
CL	CENTERLINE
D	DEGREE OF CURVE
EP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
FP	FLOODPLAIN
FR	FRAME
FW	FLOODWAY
HWL	HIGH WATER LEVEL
INV	INVERT
L	LENGTH OF CURVE
MH	MANHOLE
NWL	NORMAL WATER LEVEL
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
ROW	RIGHT-OF-WAY
SAN	SANITARY SEWER
ST	STORM SEWER
T	TANGENCY OF CURVE
TB	TOP OF BANK
TC	TOP OF CURB
TF	TOP OF FOUNDATION
TP	TOP OF PIPE
TS	TOP OF SIDEWALK
TW	TOP OF WALK
WM	WATER MAIN
△	INTERSECTION ANGLE

PROJECT LOCATION



LOCATION MAP
NTS

INDEX OF SHEETS

GENERAL NOTES

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
3. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
5. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
6. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
7. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
8. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
9. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
10. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
11. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
12. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
13. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
14. PRIOR TO CONSTRUCTION A PRE-CONSTRUCTION MEETING MUST BE HELD AT THE CITY OFFICES. THE PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED AND MODERATED BY THE DESIGN ENGINEER OF RECORD.

BENCHMARKS

BM 1: "OPEN" ON HYDRANT FLANGE ELEVATION= 131.83

BM 2: "OPEN" ON HYDRANT FLANGE ELEVATION= 134.6

BM 3: NW UPPER HYDRANT FLANGE BOLT ELEVATION= 134.56

BM 4: NORTH EDGE OF CONC. LIGHT BASE ELEVATION=141.19

VERTICAL DATUM: CITY OF WAUKESHA DATUM=NGVD DATUM -780.55
HORIZONTAL DATUM: SOUTH LINE OF CSM NO. 2913 ASSUMED TO BEAR NORTH 00°00'00" EAST

PROJECT TEAM CONTACTS

CIVIL ENGINEER:
ADAM ARTZ, P.E.
PINNACLE ENGINEERING GROUP
15850 BLUEMOUND ROAD, SUITE 210
BROOKFIELD, WI 53005
(262) 754-8888

MATT CAREY, P.E.
PINNACLE ENGINEERING GROUP
15850 BLUEMOUND ROAD, SUITE 210
BROOKFIELD, WI 53005
(262) 754-8888

APPLICANT:
ALAN ZOCHER
PREMIER DESIGN + BUILD GROUP
1000 W. IRVING PARK ROAD, STE 200
ITASCA, IL 60143

ARCHITECT:
WERNER BRISKE
PARTNERS IN DESIGN
600 FIFTY SECOND STREET STE 220
KENOSHA, WI 53140
(262) 652-2800

SURVEYOR:
DON CHAPUT, R.L.S
CHAPUT LAND SURVEYS
234 W. FLORIDA STREET
MILWAUKEE, WI 53204
(414) 224-8068

LANDSCAPING:
DAVE KMETZ
REESMANS SERVICE CORPORATION
28815 BUSHNELL ROAD
BURLINGTON, WI 53105
(262) 342-1425

FOR REVIEW

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

EXPIRATION DATE: JULY 31, 2016

PINNACLE ENGINEERING GROUP, LLC
ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

REVIEWED: ARA
DESIGNED: MRA
DRAFTED: MRA

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

COVER SHEET

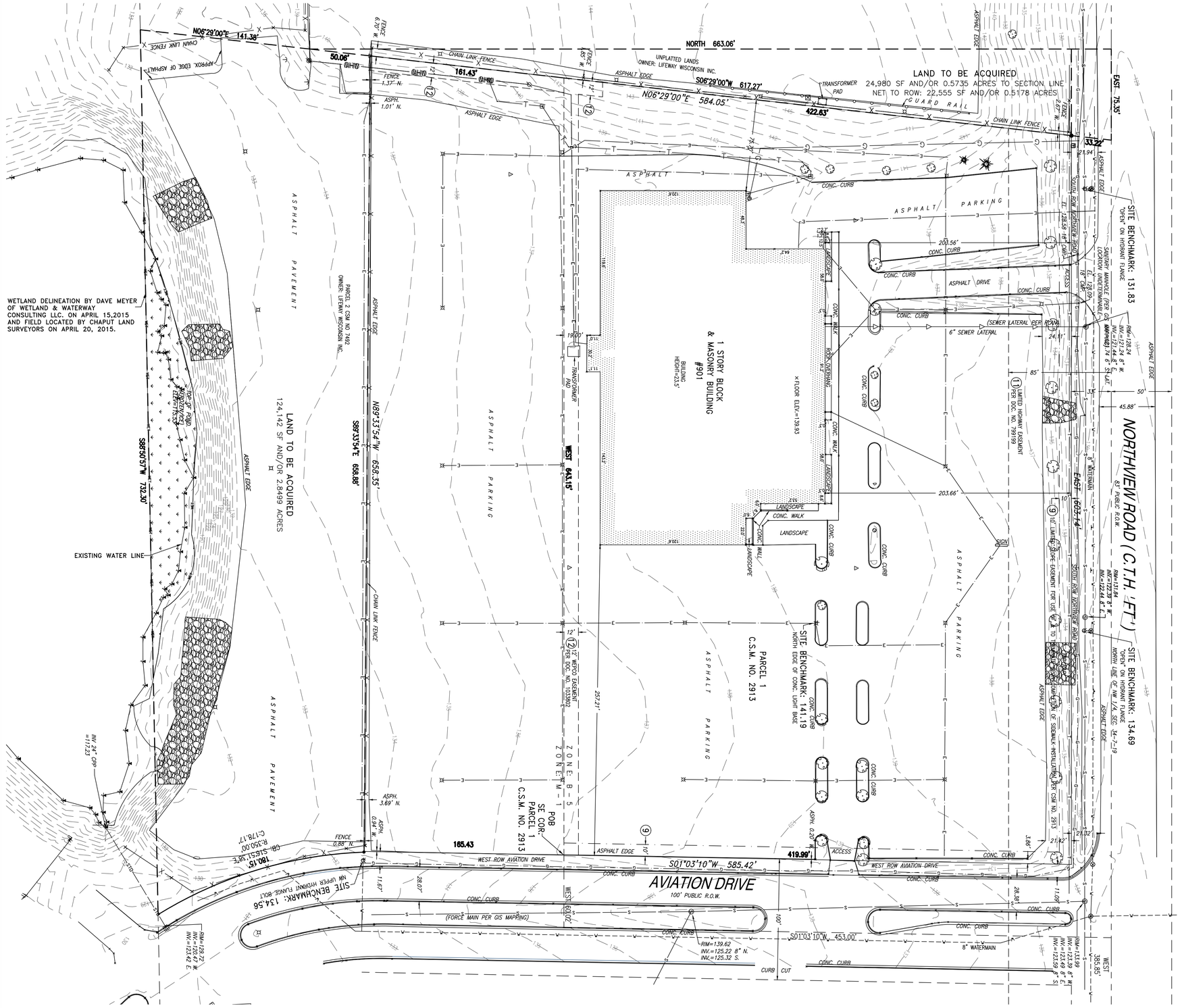
REVISIONS

1	CITY REVIEW COMMENTS	06/08/15			

PEG JOB No. 426.00
PEG PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET
C-1
OF
C-10

COVER SHEET



LEGEND

SANITARY MANHOLE		LIGHTING	
STORM MANHOLE		ELECTRICAL CABLE	E
CATCH BASIN		ELECTRICAL TRANSFORMER OR PEDESTAL	E
INLET		POWER POLE	
PRECAST FLARED END SECTION		POWER POLE WITH LIGHT	
CONCRETE HEADWALL		GUY WIRE	
VALVE VAULT		STREET SIGN	
VALVE BOX		GAS MAIN	G
FIRE HYDRANT		TELEPHONE LINE	T
BUFFALO BOX		CONTOUR	749
CLEANOUT		OVERFLOW RELIEF ROUTING	
SANITARY SEWER		TREE WITH TRUNK SIZE	6" 6"
FORCE MAIN		CONCRETE SIDEWALK	
STORM SEWER		EASEMENT LINE	
WATER MAIN	W		

EXISTING CONDITIONS SURVEY

EXISTING CONDITIONS SURVEY PROVIDED BY CHAPUT LAND SURVEYS IN MARCH OF 2015. ALTHOUGH PINNACLE ENGINEERING GROUP HAS NO REASON TO BELIEVE THE SURVEY IS INACCURATE, PEG MAKES NO WARRANTS ON EXISTING INFORMATION CONTAINED WITHIN THESE PLANS IS ALL-INCLUSIVE OR ACCURATE. ***CONTRACTOR SHALL UNDERTAKE NECESSARY EFFORTS TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF MATERIAL PROCUREMENT AND CONSTRUCTION EFFORTS/ACTIVITIES.***

CONTRACTOR RESPONSIBILITY:

"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. T**HE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.** IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE".

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

REVIEWED: ARA
DESIGNED: MRA
DRAFTED: MRA

PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING
PLAN I DESIGN I DELIVER
www.pinnacle-engr.com
WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

EXISTING CONDITIONS

REVISIONS

1	CITY REVIEW COMMENTS	06/08/15	

PEG JOB No. 426.00
PEG PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET C-2 OF C-10

EXISTING CONDITIONS

NOTES

1. PERIMETER SILT FENCING AND CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO ANY DEMOLITION. PLEASE REFER TO GRADING AND EROSION AND SEDIMENT CONTROL PLAN SHEETS FOR FURTHER DETAILS.
2. EXISTING FEATURES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGERS HOTLINE" PRIOR TO ANY DEMOLITION.
3. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
4. COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES AND THE MUNICIPALITY TO PROTECT EXISTING FUNCTIONING UTILITIES, BULKHEAD/REMOVE CONNECTIONS AS NECESSARY, AND TO ENSURE ALL UTILITIES ARE INACTIVE PRIOR TO ANY DEMOLITION ACTIVITIES. CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO ENSURE PROTECTION OF EXISTING UTILITIES THAT ARE NOT TO BE IMPACTED. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY EXISTING UTILITIES DAMAGED AS A RESULT OF THE DEMOLITION.
5. VOIDS LEFT BY REMOVAL OF FEATURES SHALL BE MODIFIED/FILLED TO PREVENT PONDING OF WATER.
6. DEMOLISH AND DISPOSE EXISTING PIPING, CABLE/WIRES, STRUCTURES, OR OTHER SURFACE FEATURES INDICATED ON THE PLANS TO BE REMOVED.
7. CLEARING AND GRUBBING DESIGNATIONS SHALL INCLUDE CLEARING, GRUBBING, REMOVING, AND DISPOSING OF ALL VEGETATION AND DEBRIS WITHIN THE LIMITS OF CONSTRUCTION, AS DESIGNATED ON THE PLANS. CONTRACTOR SHALL REMOVE ONLY THOSE TREES ABSOLUTELY NECESSARY TO ALLOW FOR CONSTRUCTION.
8. CONTRACTOR SHALL REMOVE EXISTING FENCING IN A MANNER TO ALLOW REUSE. ANY FENCING MATERIAL TO BE REUSED IN THE CONSTRUCTION OF RELOCATED FENCE LINES SHALL BE PRESENTED TO ENGINEER FOR INSPECTION AND PROPOSED CONTRACT DEDUCT ASSOCIATED WITH REUSE OF THE SALVAGED MATERIAL. ENGINEER OR OWNER WILL PROVIDE WRITTEN ACCEPTANCE OF THE PROPOSED SALVAGED MATERIAL.
9. CONTRACTOR SHALL COORDINATE WITH THE MUNICIPALITY FOR TERMINATION OF PUBLIC UTILITY CONNECTIONS TO SITE.
10. CONTRACTOR SHALL COORDINATE STOCKPILE LIMITS AND LOCATIONS WITH ENGINEER/OWNER PRIOR TO DEMOLITION.
11. ALL EXTRANEOUS, REMAINING MATERIALS RESULTING FROM ANY PROPOSED DEMOLITION OR GRADING SHALL BE REMOVED FROM THE SUBJECT PROPERTY (PROPOSED OUTLOT 1) FOLLOWING THE CONSTRUCTION OF THE PROPOSED EARTHEN BERMS, PLANT MATERIAL DEMOLITION AND/OR REMOVAL, LANDSCAPING, AND ASPHALT WALKING PATH CONSTRUCTION AND SHALL NOT BE STOCKPILED ON THE SUBJECT PROPERTY.

CONTRACTOR RESPONSIBILITY:

"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. **THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.** IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE".

LEGEND

- REMOVE EXISTING BUILDING
- REMOVE GRAVEL, CONCRETE OR ASPHALT SURFACE, AND CURBED ISLANDS WITH TREES
- REMOVE POLE
- SAWCUT

REMOVE EXISTING TRANSFORMER PAD. COORDINATE WITH WE ENERGIES

REMOVE/RELOCATE EXISTING ELECTRICAL POLES

EXISTING SANITARY LATERAL TO BE REMOVED IN CONFORMANCE WITH CITY SPECIFICATIONS. (SEE ATTACHED CITY SPECS DOCUMENT)

REMOVE EXISTING CURB (TYP.)

REMOVE EXISTING TRANSFORMER PAD. COORDINATE WITH WE ENERGIES

SAWCUT EXISTING DRIVEWAY APPROACH

REMOVE EXISTING BUILDING

REMOVE EXISTING RIP RAP (TYP.)

REMOVE EXISTING SIGN

REMOVE EXISTING LIGHT POLES AND ABANDON/REMOVE ELECTRICAL WIRE AS NEEDED (TYP.)

REMOVE EXISTING ASPHALT AND CURBED ISLANDS WITH TREES (TYP.)

REMOVE EXISTING CURB (TYP.)

SAWCUT EXISTING DRIVEWAY APPROACH

REMOVE EXISTING STORM SEWER (PER CITY SPECS DOCUMENT ATTACHED)

WETLAND DELINEATION BY DAVE MEYER OF WETLAND & WATERWAY CONSULTING LLC. ON APRIL 15,2015 AND FIELD LOCATED BY CHAPUT LAND SURVEYORS ON APRIL 20, 2015.

EXISTING WATER LINE

SITE BENCHMARK: 134.69
"OPEN" ON HYDRANT FLANGE
NORTH LINE OF NW 1/4, SEC 34-7-19

SITE BENCHMARK: 131.83
"OPEN" ON HYDRANT FLANGE

SITE BENCHMARK: 141.19
NORTH EDGE OF CONC. LIGHT BASE

SITE BENCHMARK: 134.56
NW UPPER HYDRANT FLANGE BOLT

NORTHVIEW ROAD / C.T.H. 'FT'
66' PUBLIC R.O.W.

AVIATION DRIVE
100' PUBLIC R.O.W.

GRAPHICAL SCALE (FEET)
0 1" = 40' 80'

PLAN I DESIGN I DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING

WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

DEMOLITION PLAN

REVISIONS

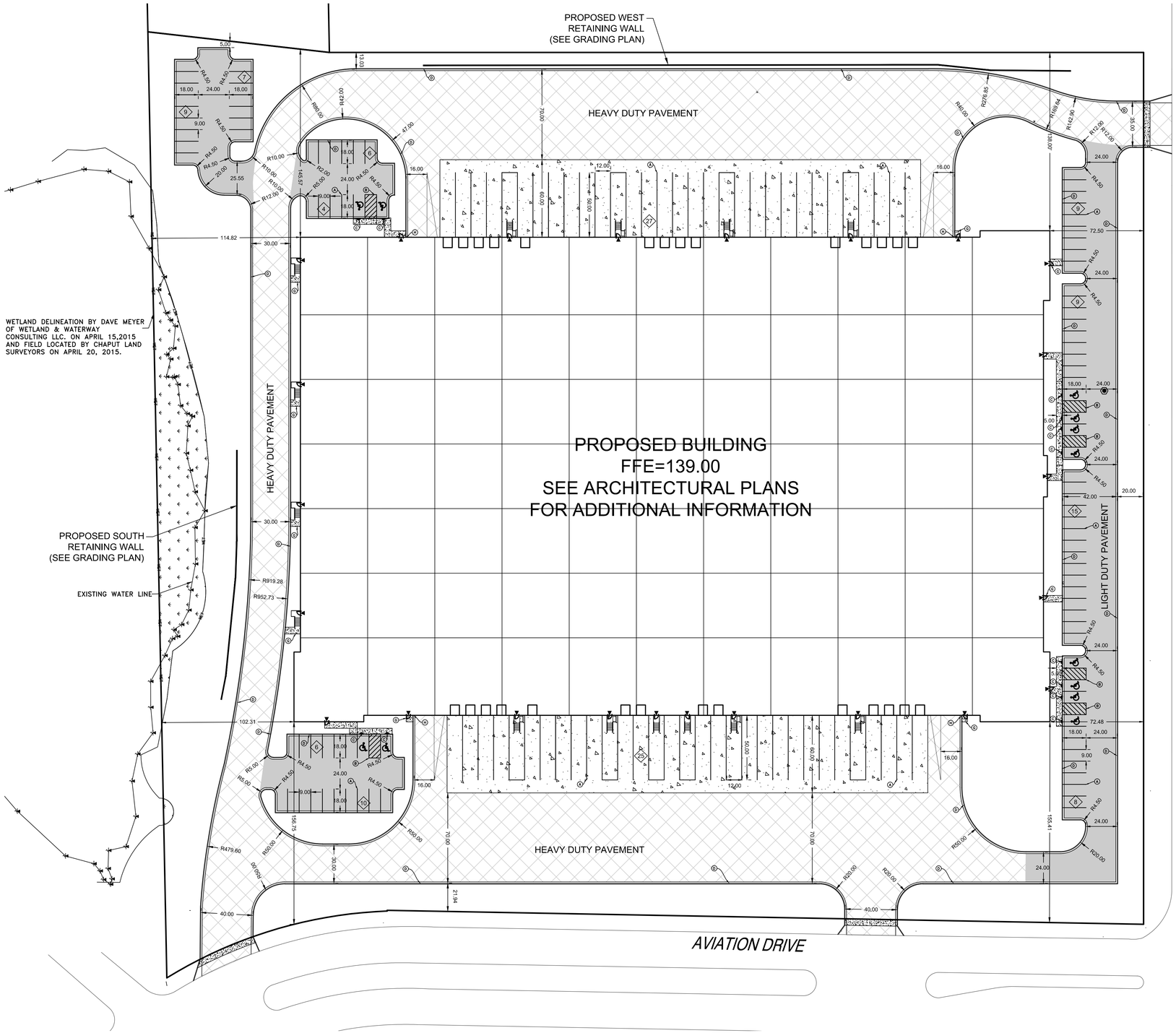
1	CITY REVIEW COMMENTS	06/08/15	

PEC JOB No. 426.00
PEC PM: ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET C-3 OF C-10

DEMOLITION PLAN

DRAFTED: MRA
DESIGNED: MRA
REVIEWED: ARA



LEGEND

- **LIGHT DUTY PAVEMENT**
  - 10" CRUSHED AGGREGATE BASE COURSE (1-1/2" DENSE GRADED LIMESTONE)
  - 3-1/4" ASPHALTIC CONC. (2 LIFTS)
    - LOWER LAYER (E-1 MIX; 19.0 mm NOMINAL SIZE)
    - UPPER LAYER (E-1 MIX; 9.5 mm NOMINAL SIZE)
- **HEAVY DUTY PAVEMENT**
  - 9" CRUSHED AGGREGATE BASE COURSE (1-1/2" DENSE GRADED LIMESTONE)
  - 5" ASPHALTIC CONC. (2 LIFTS)
    - LOWER LAYER (E-3 TYPE; 19.0 mm NOMINAL SIZE)
    - UPPER LAYER (E-3 TYPE; 12.5 mm NOMINAL SIZE)
- **CONCRETE PAVEMENT (TRUCK DOCK AREA)**
  - 7" CRUSHED AGGREGATE BASE COURSE (1-1/2" DENSE GRADED LIMESTONE)
  - 7" PCC (4000 PSI AIR ENTRAINED CONCRETE WITH 6x6x6 GAUGE STEEL MESH)
- **CONCRETE SIDEWALK**
- (A) 4" SOLID WHITE STRIPE
- (B) 4" DIAGONAL AT 45° SPACED 2' O.C.
- (C) R7-8 HANDICAP PARKING SIGN (SEE DETAIL)
- (D) 18" CURB & GUTTER (SEE DETAIL)
- (E) 18" REVERSE CURB & GUTTER (SEE DETAIL)
- (F) 24" CURB & GUTTER (SEE DETAIL)
- (G) BUILDING DOOR SLAB (2% MAX SLOPE WITHIN DRIVE IN OR MAN DOOR)
- (H) TAPER CURB HEAD
- (16) PARKING COUNT (FOR INFORMATION ONLY, NOT TO BE PAINTED)

"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE".

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

DRAFTED: MRA
DESIGNED: MRA
REVIEWED: ARA

PLAN I DESIGN I DELIVER
www.pinnacle-engr.com
PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING
WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

SITE DIMENSIONAL & PAVING PLAN

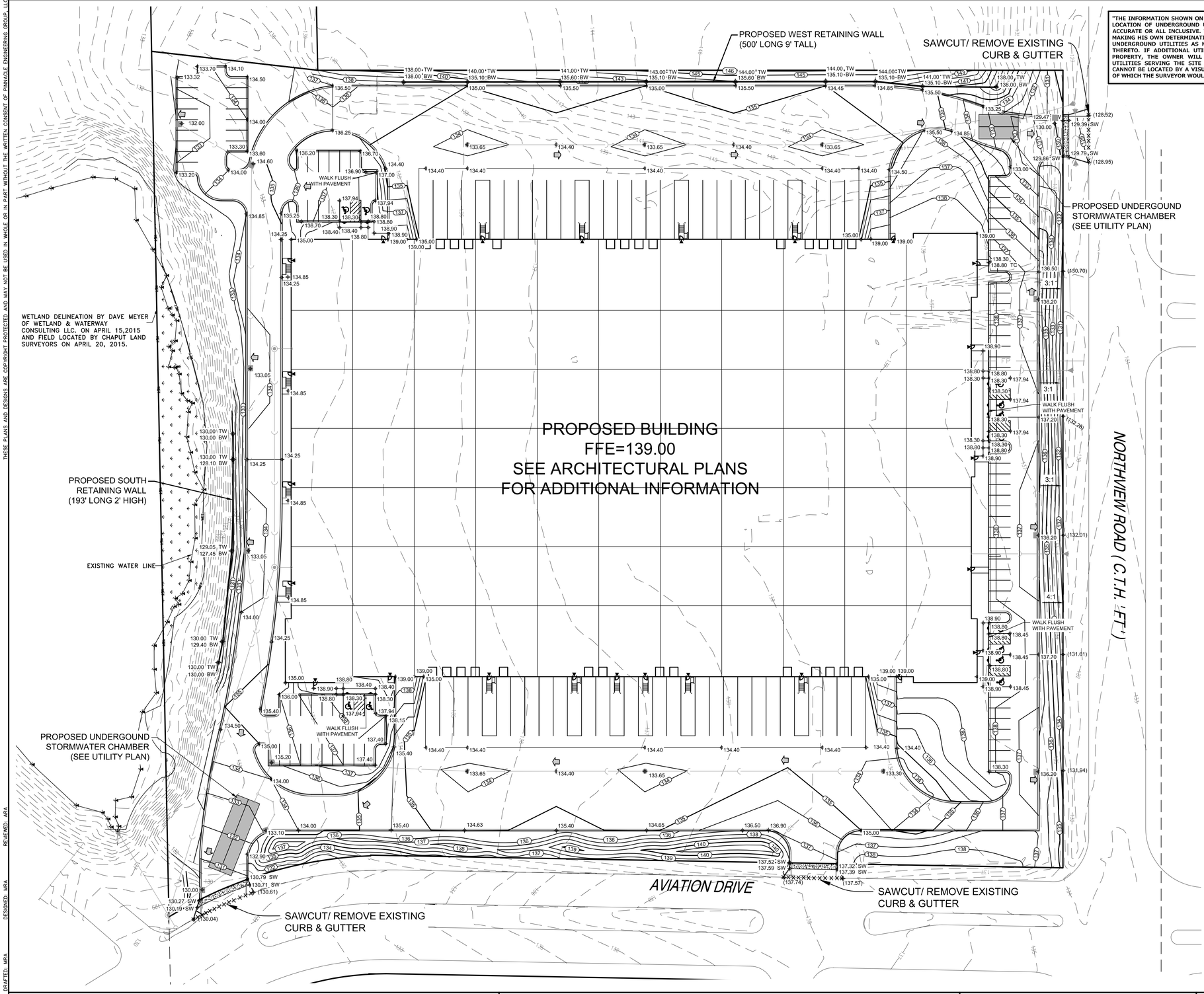
REVISIONS

1	CITY REVIEW COMMENTS	06/08/15	

PEC JOB No. 426.00
PEC PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET C-4 OF C-10

SITE DIMENSIONAL & PAVING PLAN



"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE".

LEGEND

	STORM SEWER MANHOLE
	STORM SEWER CATCH BASIN- ROUND CASTING
	STORM SEWER CATCH BASIN- RECTANGULAR CASTING
	PROPOSED CONCRETE FLARED END SECTION
749	CONTOUR
750.00	SPOT ELEVATION
(750.00)	MATCH EXISTING GRADE
	DIRECTION OF SURFACE FLOW
	DITCH OR SWALE
	DIVERSION SWALE
	OVERFLOW RELIEF ROUTING
	CONCRETE SIDEWALK
	CURB AND GUTTER
	DEPRESSED CURB
	REVERSE PITCH CURB & GUTTER
EP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
TW	TOP OF WALK
YG	YARD GRADE

NOTES

1. CONTRACTOR SHALL VERIFY ALL GRADES, ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO PINNACLE ENGINEERING GROUP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
2. ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
3. SPOT ELEVATIONS REPRESENT THE GRADE ALONG THE EDGE OF PAVEMENT/ FACE OF CURB UNLESS OTHERWISE NOTED.
4. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.

   CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE PEG ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE, THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.

   THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
6. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
7. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
8. WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY FIELD MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MOST RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
9. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
10. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
11. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
12. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
13. CONTRACTOR SHALL PROTECT INLETS AND ADJACENT PROPERTIES WITH SILT FENCING OR APPROVED EROSION CONTROL METHODS UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL PLACE SILT FENCING AT DOWN SLOPE SIDE OF GRADING LIMITS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING FACILITIES OR UTILITIES. ANY DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
15. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
16. CONTRACTOR SHALL COMPLY WITH ALL WAUKESHA COUNTY CONSTRUCTION STANDARDS/ORDINANCES.
17. LANDSCAPE AND TURF AREAS SHALL HAVE A MINIMUM OF 4-INCH TOPSOIL REPLACEMENT.
18. TOPSOIL BERMING SHALL ACHIEVE 90% STANDARD PROCTOR DENSITY AT 3%(±) OPTIMUM MOISTURE CONTENT.
19. SURVEY BENCHMARKS AND MAPPING HAS BEEN PROVIDED BY CHAPUT LAND SURVEY, INC. IN NO WAY DOES PEG WARRANT THE BASEMAP IS ALL INCLUSIVE OR REPRESENTATIVE OF ACTUAL CONDITIONS. CONTRACTOR SHALL PROVIDE CHECKS AS NECESSARY TO VERIFY THE BASEMAP CONTENT AND ACCURACY.

DRAFTED: MRA
DESIGNED: MRA
REVIEWED: ARA

PLAN I DESIGN I DELIVER
www.pinnacle-engr.com
PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING
WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

GRADING PLAN

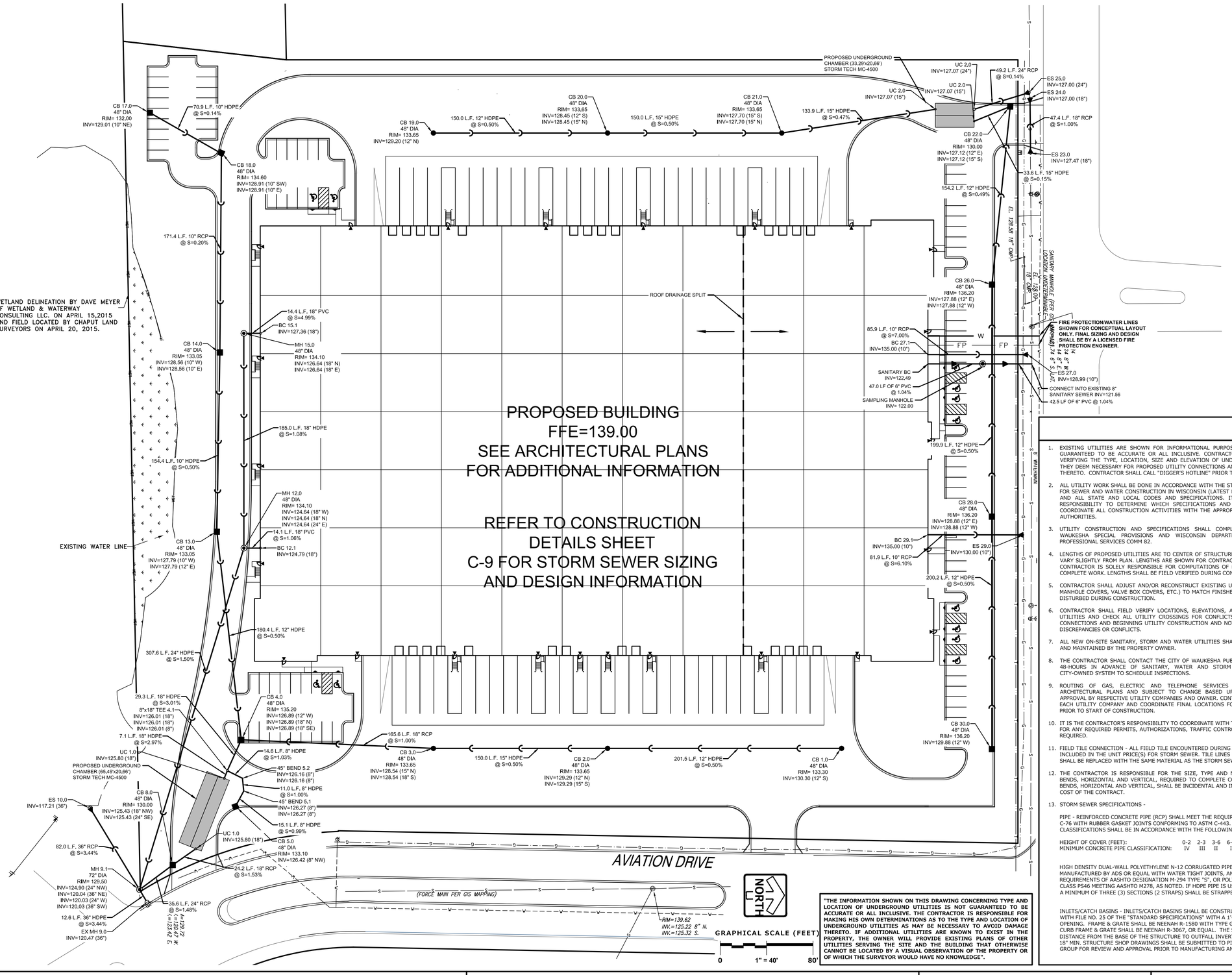
REVISIONS

1	CITY REVIEW COMMENTS	06/08/15			

PEG JOB No. 426.00
PEG PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET C-5 OF C-10

GRADING PLAN



LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST CONCRETE FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- SANITARY SEWER
- FORCE MAIN
- STORM SEWER
- DRAIN TILE
- W — WATER MAIN
- FP — FIRE PROTECTION
- UTILITY CROSSING
- ELECTRICAL CABLE
- GAS MAIN
- TELEPHONE LINE
- OHW — OVERHEAD WIRES
- LIGHTING
- ELECTRICAL TRANSFORMER OR PEDESTAL
- POWER POLE
- POWER POLE WITH LIGHTS
- STREET SIGN
- UTILITY TO BE REMOVED

NOTES

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
3. UTILITY CONSTRUCTION AND SPECIFICATIONS SHALL COMPLY WITH THE CITY OF WAUKESHA SPECIAL PROVISIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES COMM 82.
4. LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
5. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
6. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
7. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
8. THE CONTRACTOR SHALL CONTACT THE CITY OF WAUKESHA PUBLIC WORKS DEPARTMENT 48-HOURS IN ADVANCE OF SANITARY, WATER AND STORM CONNECTIONS TO THE CITY-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
9. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES ARE SHOWN ON THE ARCHITECTURAL PLANS AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPER AUTHORITIES FOR ANY REQUIRED PERMITS, AUTHORIZATIONS, TRAFFIC CONTROL AND ANY PERMIT FEES REQUIRED.
11. FIELD TILE CONNECTION - ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE SIZE, TYPE AND NUMBER OF WATER MAIN BENDS, HORIZONTAL AND VERTICAL, REQUIRED TO COMPLETE CONSTRUCTION. COST FOR BENDS, HORIZONTAL AND VERTICAL, SHALL BE INCIDENTAL AND INCLUDED IN THE OVERALL COST OF THE CONTRACT.
13. STORM SEWER SPECIFICATIONS -

    PIPE - REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS C-76 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. STRENGTH CLASSIFICATIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

HEIGHT OF COVER (FEET):	0-2	2-3	3-6	6-15	15-25	25+
MINIMUM CONCRETE PIPE CLASSIFICATION:	IV	III	II	III	IV	ENGINEER TO SPECIFY

    HIGH DENSITY DUAL-WALL POLYETHYLENE N-12 CORRUGATED PIPE (HDPE) SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S", OR POLYVINYL CHLORIDE (PVC) - CLASS PS46 MEETING AASHTO M278, AS NOTED. IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER.

    INLETS/CATCH BASINS - INLETS/CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NO. 25 OF THE "STANDARD SPECIFICATIONS" WITH A 1'-8" X 2'-6" MAXIMUM OPENING. FRAME & GRATE SHALL BE NEENAH R-1580 WITH TYPE G GRATE, OR EQUAL. CURB FRAME & GRATE SHALL BE NEENAH R-3067, OR EQUAL. THE SUMP DEPTH (VERTICAL DISTANCE FROM THE BASE OF THE STRUCTURE TO OUTFALL INVERT OF THE PIPE) SHALL BE 18" MIN. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.

    BACKFILL AND BEDDING - STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS". MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL . IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER.
14. WATER MAIN SPECIFICATIONS -

    PIPE - WATER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. VALVES AND VALVE BOXES - GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS - HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE CITY OF WAUKESHA AND IN ACCORDANCE WITH FILE NO. 38 OF THE "STANDARD SPECIFICATIONS." THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES.

    BEDDING AND COVER MATERIAL - PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
15. SANITARY SEWER SPECIFICATIONS -

    PIPE - SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.

    BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

    BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

    MANHOLES - MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE CITY OF WAUKESHA. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.

    MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL
16. WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).
17. TRACER WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES. THE TRACER WIRE FOR THE SANITARY SEWER LATERAL SHALL BE CONTINUOUS AND SHALL BE EXTENDED ABOVE GRADE VIA A 4-INCH PVC PIPE WITH SCREW-ON CAP ADJACENT TO THE PROPOSED TERMINATION POINT OF THE LATERAL FOR THE PROPOSED BUILDING.
18. SEE UTILITY PLANS , CITY CONSTRUCTION DOCUMENTS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE".

REVIEWED MRA
DESIGNED MRA
DRAFTED MRA

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

UTILITY PLAN

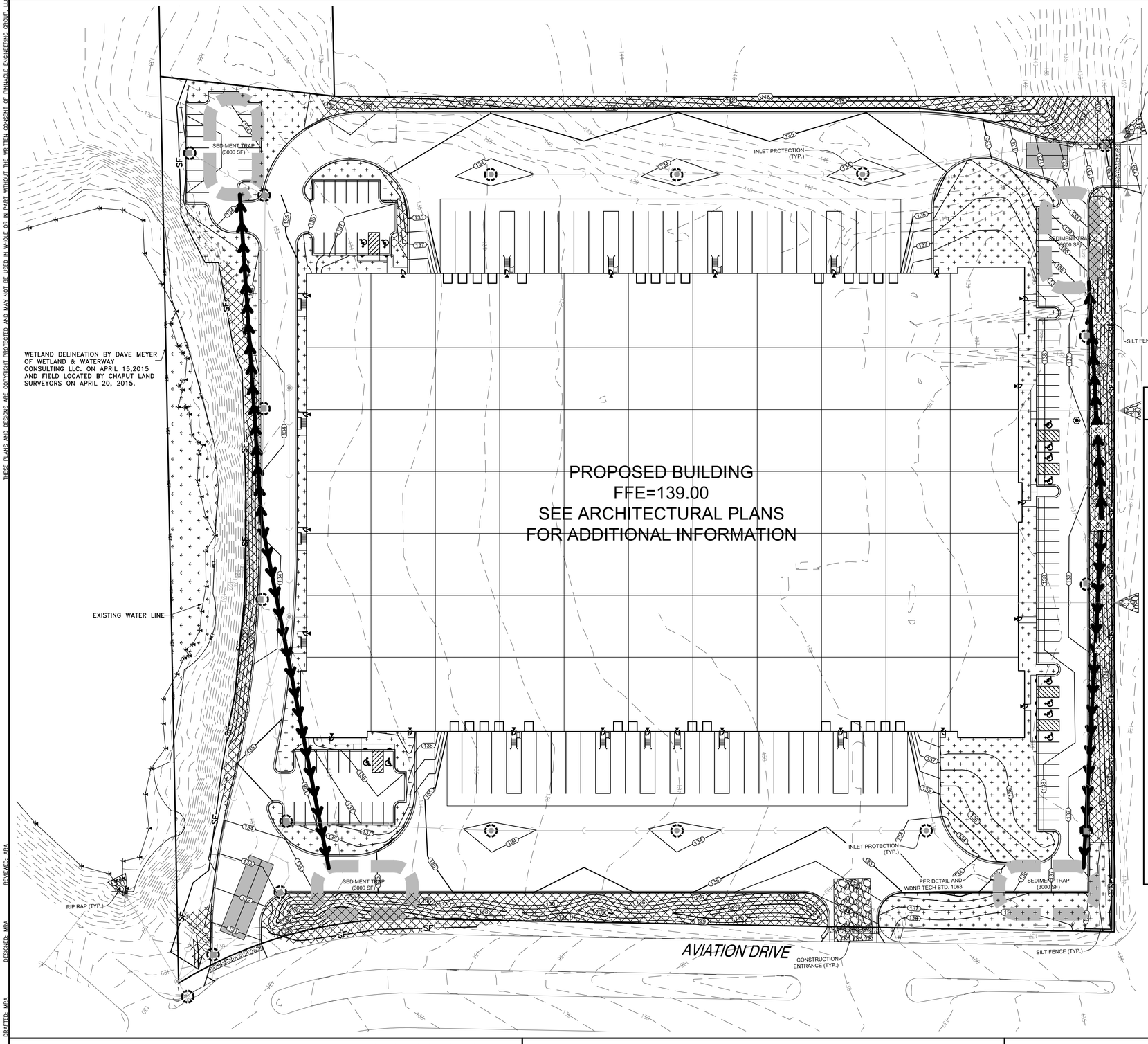
REVISIONS

1	CITY REVIEW COMMENTS	06/08/15			

PEC JOB NO. 426.00
PEC PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET
C-6
of
C-10

UTILITY PLAN



LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM STORM CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- PROPOSED CONTOUR
- 750.0 PROPOSED SPOT ELEVATION
- WETLANDS
- FLOODPLAIN
- HIGH WATER LEVEL (HWL)
- NORMAL WATER LEVEL (NWL)
- DIRECTION OF SURFACE FLOW
- DITCH OR SWALE
- DIVERSION SWALE
- OVERFLOW RELIEF ROUTING
- SF SILT FENCE
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- HYDROSEED (PER MANUFACTURER SPECIFICATIONS)
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S75 OR EQUAL)

"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE".

CONSTRUCTION SITE SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS AND SEDIMENT TRAPS/BASINS AS NEEDED.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
7. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

   CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT ("WPDES" PERMIT NO. WI-S067831-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S), IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY THE GOVERNING AGENCIES.
7. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS . ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:

   PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.

   BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.

   DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
9. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
10. ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS.
11. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
12. TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
13. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORK DAY, WHICH EVER OCCURS FIRST.
14. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
15. PUMPS MAY BE USED AS BYPASS DEVICES, IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
18. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE.THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
19. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
20. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
21. SEE ADDITIONAL DETAILS AND NOTES ON SITE STABILIZATION AND CONSTRUCTION DETAILS.
22. CONTRACTOR SHALL SURFACE ROUGH THE HILLSIDE SLOPES WITH HEAVY EQUIPMENT TRACKS PRIOR TO TOPSOIL RETURN

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

REVIEWED: ARA
DESIGNED: MRA
DRAFTED: MRA

PLAN I DESIGN I DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING I NATURAL RESOURCES I SURVEYING

WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO I MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD

WAUKESHA, WI

SITE STABILIZATION PLAN

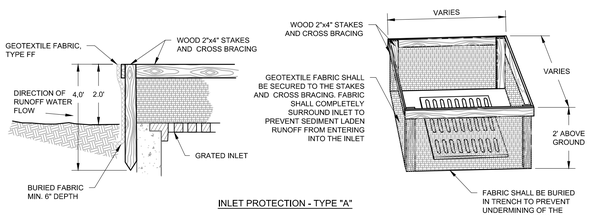
REVISIONS

1	CITY REVIEW COMMENTS	06/08/15			

PEG JOB No. 426.00
PEG PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET
C-7
OF
C-10

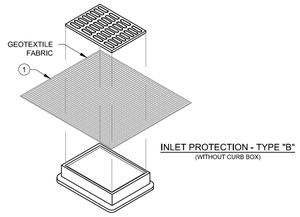
SITE STABILIZATION PLAN



INLET PROTECTION - TYPE "A"

NOTES:

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, WITH AN EOS OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
1. FINISHED SIZE, INCLUDING FLAP POCKET WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18 INCHES OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

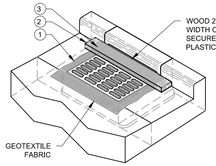


INLET PROTECTION - TYPE "B"
(WITHOUT CURB BOX)

TYPE "B" & "C" INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

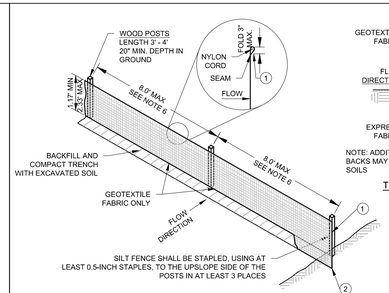
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

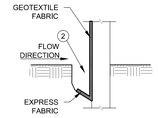


INLET PROTECTION, TYPE "C"
(WITH CURB BOX)

INLET PROTECTION

#104 - 04-24-11





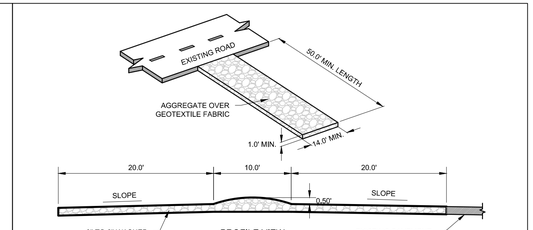
TRENCH DETAIL

NOTES:

1. ALL SILT FENCE MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1056.
2. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
4. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
5. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
6. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE, WHERE APPLICABLE.
7. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN AND 3-FEET FOR NON-WOVEN).

SILT FENCE

#105C- 07-31-13



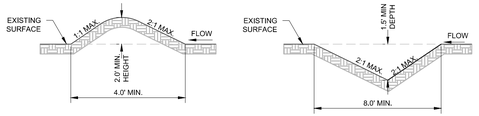
PROFILE VIEW

NOTES:

1. ALL TRACKING PAD MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1057.
2. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. CONTRACTOR SHALL VERIFY LOCATION WITH OWNER.
3. THE AGGREGATE FOR TRACKING PADS SHALL BE 3 TO 6 INCH CLEAR OR WASHED STONE. ALL MATERIALS TO BE RETAINED ON A 3-INCH SIEVE
4. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12-INCHES THICK. ON SITES WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PAD, THE PAD SHALL BE UNDERLAIN WITH GEOTEXTILE FABRIC WHICH MEETS MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II OR IV, TO PREVENT MIGRATION OF UNDERLYING SOILS INTO THE STONE LAYER.
5. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. MINIMUM WIDTH IS 14 FEET FOR ONE-WAY TRAFFIC AND 20 FEET FOR TWO-WAY TRAFFIC, WITH AN ADDITIONAL INCREASE OF 4 FEET FOR TRAILER TRAFFIC. THE TRACKING PAD SHALL BE A MINIMUM 50-FEET LONG.
6. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, AT THE END OF EACH WORKING DAY.
7. TRACKING PADS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24-HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
8. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP-DRESSING WITH ADDITIONAL AGGREGATE.

CONSTRUCTION ENTRANCE

#107-WI- 10-02-12



BERM

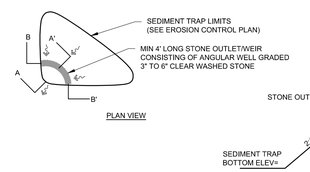
CHANNEL

NOTES:

1. DIVERSION MAY REQUIRE AREAS OF BERM AND OTHER AREAS OF CHANNEL TO PROVIDE SUFFICIENT PERIMETER PROTECTION.
2. DIVERSION BERM VERSUS CHANNEL PRACTICES SHALL BE SELECTED SUCH TO PREVENT PONDING (E.G. - POSITIVE DRAINAGE SHALL BE MAINTAINED).
3. FOR DIVERSIONS THAT ARE TO SERVE LONGER THAN 30 DAYS, THE SIDE SLOPES INCLUDING THE RIDGE, AND THE DOWN SLOPE SIDE OF THE DIVERSION SHALL BE STABILIZED AS SOON AS THEY CONSTRUCTED BY EQUIPMENT TRACKING AND TEMPORARY SEEDING. FOR DIVERSIONS SERVING LESS THAN 30 DAYS, THE DOWN SLOPE SIDE OF THE DIVERSION SHALL BE STABILIZED AS SOON AS CONSTRUCTED BY EQUIPMENT TRACKING AND TEMPORARY SEEDING .
4. DIVERSIONS SHALL BE PROTECTED FROM DAMAGE BY CONSTRUCTION ACTIVITIES. AT ALL POINTS WHERE DIVERSION BERMS OR CHANNELS WILL BE CROSSED BY CONSTRUCTION EQUIPMENT, THE DIVERSION SHALL BE SHAPED APPROPRIATELY AND/OR TEMPORARY CULVERTS OF ADEQUATE CAPACITY MAYBE ADDED AT CROSSINGS.
5. AT MINIMUM, INSTALL ONE DITCH CHECK (SEE DETAIL) FOR EVERY 2 VERTICAL FEET OF DROP.
6. DIVERSIONS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION TO SITE CONDITIONS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE DIVERSION BERM.

DIVERSION BERM / CHANNEL

#113-A 10-02-12



NOTES:

1. SEDIMENT TRAP SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1063.
2. SIDE SLOPES SHALL BE STABILIZED AS SOON AS THEY ARE CONSTRUCTED.
3. IF OUTLET BECOMES CLOGGED IT SHALL BE CLEANED TO RESTORE FLOW CAPACITY.
4. THE DEPTH OF THE SEDIMENT TRAP FROM THE BOTTOM OF THE TRAP TO THE INVERT OF THE STONE OUTLET SHALL BE AT LEAST 3 FEET.
5. THE SEDIMENT TRAP SHALL HAVE LENGTH TO WIDTH RATIO OF AT LEAST 2:1. SIDE SLOPES SHALL BE NO STEEPER THAN 2:1.
6. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION TO SITE CONDITIONS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 1 FOOT.
7. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF WDNR TS 1056.

SEDIMENT TRAP

#110-A 10-02-12

DRAFTED: MRA
DESIGNED: MRA
REVIEWED: ARA

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com
PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING
CHICAGO | MILWAUKEE - NATIONWIDE
WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888

901 NORTHVIEW ROAD
WAUKESHA, WI

CONSTRUCTION DETAILS

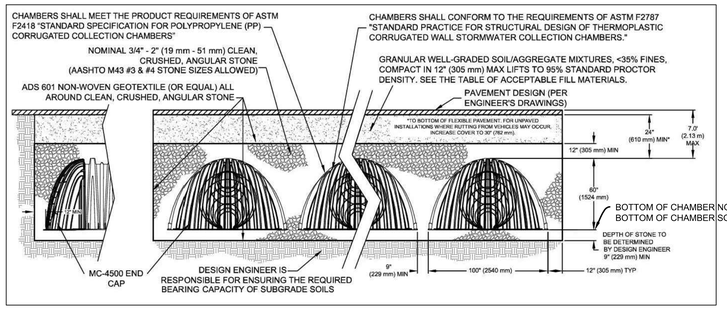
REVISIONS

1	CITY REVIEW COMMENTS	06/08/15			

PEG JOB No.: 426.00
PEG PM: ARA
START DATE: 04/27/15
SCALE: 1" = 40'

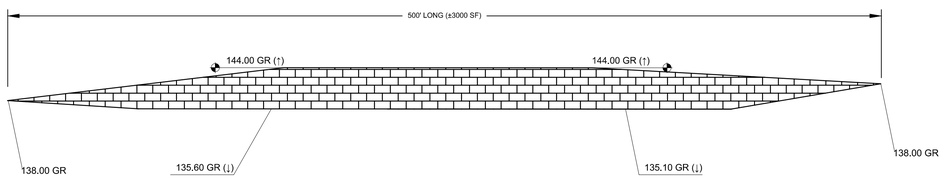
SHEET
C-8
OF
C-10

CONSTRUCTION DETAILS

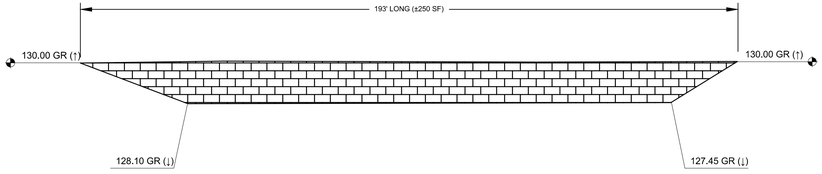


TYPICAL SECTION OF ADS STORMTECH 4500 CHAMBER

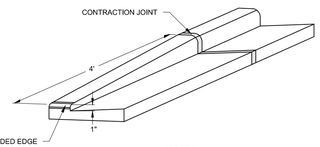
UNDERGROUND CHAMBER DETAIL



WEST RETAINING WALL



SOUTH RETAINING WALL

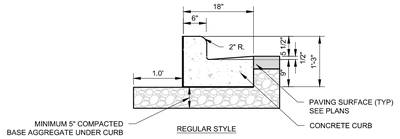


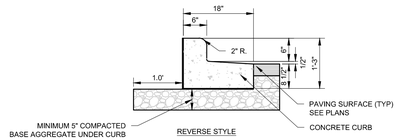
NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET
2. EXPANSION JOINTS (3/4" EXPANSION FIBER MATERIAL) SHALL BE PLACED EVERY 300 FEET AND AT EVERY PC/PT AND 3 FEET FROM STRUCTURES

TAPER CURB HEAD

#623 10-11-12



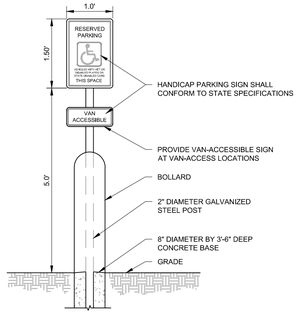


NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200 FEET OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.

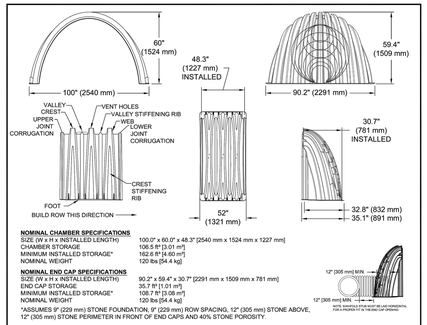
18" VERTICAL FACE CURB

#602-WI 12-14-11



ADA SIGN

#707 10-11-12



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH)	100.0" x 60.0" x 48.3" [2540 mm x 1524 mm x 1227 mm]
CHAMBER STORAGE	106.5 ft³ [3.01 m³]
MINIMUM INSTALLED STORAGE*	162.6 ft³ [4.60 m³]
NOMINAL WEIGHT	120 lbs [54.4 kg]

NOMINAL END CAP SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH)	90.2" x 59.4" x 30.7" [2291 mm x 1509 mm x 781 mm]
END CAP STORAGE	35.7 ft³ [1.01 m³]
MINIMUM INSTALLED STORAGE*	108.7 ft³ [3.08 m³]
NOMINAL WEIGHT	120 lbs [54.4 kg]

*ASSUMES 9" (229 mm) STONE FOUNDATION, 9" (229 mm) ROW SPACING, 12" (305 mm) STONE ABOVE, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

NOTE: MINIMUM STONE HEIGHT BE LIKE HORIZONTAL FOR A PERIOD FT IN THE END CAP OPENING

PART NUMBERS ENDING WITH "B" ARE FOR STUBS AT BOTTOM OF END CAP.
PART NUMBERS ENDING WITH "T" ARE FOR STUBS AT TOP OF END CAP.

PART #	STUB	B	C
MC4500REPE06BT	6" [150 mm]	42.54" [1081 mm]	N/A
MC4500REPE06TB	6" [150 mm]	N/A	0.86" [22 mm]
MC4500REPE08BT	8" [200 mm]	40.50" [1029 mm]	N/A
MC4500REPE08TB	8" [200 mm]	N/A	1.01" [26 mm]
MC4500REPE10BT	10" [250 mm]	38.37" [975 mm]	N/A
MC4500REPE10TB	10" [250 mm]	N/A	1.13" [29 mm]
MC4500REPE12BT	12" [300 mm]	35.68" [907 mm]	N/A
MC4500REPE12TB	12" [300 mm]	N/A	1.50" [39 mm]
MC4500REPE15BT	15" [375 mm]	32.72" [831]	N/A
MC4500REPE15TB	15" [375 mm]	N/A	1.70" [43 mm]
MC4500REPE18BT	18" [450 mm]	29.36" [746 mm]	N/A
MC4500REPE18TB	18" [450 mm]	N/A	1.97" [50 mm]
MC4500REPE24BT	24" [600 mm]	23.05" [590 mm]	N/A
MC4500REPE24TB	24" [600 mm]	N/A	2.28" [57 mm]
MC4500REPE30BT	30" [750 mm]	N/A	2.99" [75 mm]
MC4500REPE36BT	36" [900 mm]	N/A	3.25" [83 mm]
MC4500REPE42BT	42" [1050 mm]	N/A	3.55" [90 mm]

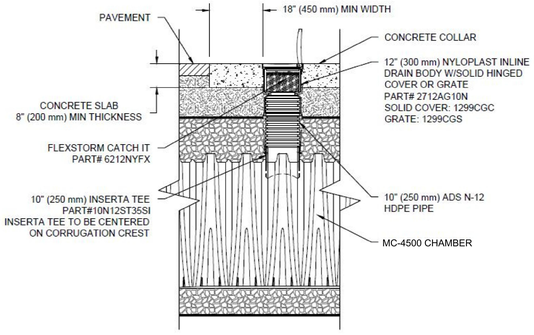
1. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm).
2. THE INVERT LOCATIONS IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

NOTE: ALL DIMENSIONS ARE NOMINAL

MC-4500 TECHNICAL SPECIFICATIONS

SCALE: NTS
DATE: 11-22-11
DRAWN BY: KAM
CHECKED:

STRUCTURE DATA			DRAINAGE AREA AND FLOW DATA (Flow is determined by SPS 382.36)					PIPE DATA				PIPE CAPACITY INFORMATION (Pipe capacity is determined by Manning's Equation Q = 1.486/n AR^2/3 S^1/2)					ELEVATIONS	
Pipe Run	Upstream Structure	Downstream Structure	Roof Area (sf)	Pvmt Area (sf)	Grass Area (sf)	Individual Flow Q (cfs)	Cumulative Flow (cfs)	Length (ft)	Diameter (in)	Slope (%)	Manning Coefficient	Required Drop (ft)	Actual Drop (ft)	Percent Full (%)	Actual Velocity (fps)	Max. Capacity (cfs)	Rim/Toc Up	Invert Up	Invert Down
	CB 1.0	CB 2.0	0	18000	13000	1.51	1.51	201.50	12	0.50	0.013	0.36	1.01	57%	3.35	2.71	133.30	130.30	129.29
	CB 2.0	CB 3.0	0	25000	4000	1.80	3.31	150.00	15	0.50	0.013	0.00	1.19	66%	4.06	4.91	133.65	129.29	128.54
	CB 3.0	CB 4.0	0	17600	2000	1.25	4.56	165.00	18	1.00	0.013	0.31	1.65	45%	5.73	11.30	133.65	128.54	126.89
	CB 4.0	TEE 4.1	0	6000	0	0.41	6.91	29.30	18	3.00	0.013	0.13	0.88	41%	9.59	19.57	135.20	126.89	126.01
	TEE 4.1	UC 1.0	0	0	0	0.00	7.53	7.10	18	3.00	0.013	0.04	0.21	43%	9.81	19.57	133.50	126.01	125.80
	UC 1.0	CB 8.0	0	0	0	0.00	7.53	24.20	18	1.50	0.013	0.12	0.36	56%	7.56	13.84	133.00	125.80	125.43
	CB 8.0	MH 9.1	0	3300	0	0.23	20.95	35.60	24	1.50	0.013	0.31	0.53	69%	9.69	29.80	130.00	125.43	124.90
	MH 9.1	ES 10.0	0	0	0	0.00	25.75	82.00	36	3.44	0.013	0.12	2.82	26%	13.82	133.07	129.50	120.03	117.21
	BC 15.1	MH 15.0	76000	0	0	6.51	6.51	14.40	18	5.00	0.013	0.06	0.72	32%	11.37	25.27	139.00	127.36	126.64
	MH 15.0	MH 12.0	0	0	0	0.00	6.51	185.00	18	1.00	0.013	0.71	1.85	59%	6.26	11.30	134.10	126.64	124.79
	BC 12.1	MH 12.0	78000	0	0	6.68	6.68	14.10	18	1.00	0.013	0.06	0.14	60%	6.30	11.30	139.00	124.79	124.64
	MH 12.0	MH 9.1	0	0	0	0.00	13.20	307.60	24	1.50	0.013	1.05	4.61	48%	8.71	29.80	134.10	124.64	120.03
	CB 17.0	CB 18.0	0	5000	4000	0.43	0.43	70.90	10	0.15	0.013	0.03	0.11	50%	1.56	0.91	132.00	129.01	128.91
	CB 18.0	CB 14.0	0	11000	0	0.75	0.75	171.40	10	0.20	0.013	0.20	0.34	70%	1.98	1.05	134.60	128.91	128.56
	CB 14.0	CB 13.0	0	7000	0	0.48	0.91	154.40	10	0.50	0.013	0.27	0.77	56%	2.95	1.67	133.05	128.56	127.79
	CB 13.0	CB 4.0	0	6000	0	0.41	1.32	180.40	12	0.50	0.013	0.25	0.90	52%	3.24	2.71	133.05	127.79	126.89
	BC 27.1	ES 27.0	30000	0	0	2.57	2.57	85.80	10	7.00	0.013	1.18	6.01	46%	10.31	6.24	139.00	135.00	128.99
	BC 29.1	ES 29.0	30000	0	0	2.57	2.57	81.90	10	6.10	0.013	1.13	5.00	48%	9.79	5.82	139.00	135.00	130.00
	CB 30.0	CB 28.0	0	5000	0	0.34	0.34	200.20	12	0.50	0.013	0.02	1.00	19%	2.24	2.71	136.20	129.88	128.88
	CB 28.0	CB 26.0	0	11000	0	0.75	1.10	199.90	12	0.50	0.013	0.19	1.00	45%	3.10	2.71	136.20	128.88	127.88
	CB 26.0	CB 22.0	0	7000	0	0.48	1.58	154.20	12	0.49	0.013	0.30	0.76	60%	3.36	2.68	136.20	127.88	127.12
	CB 22.0	UC 2.0	0	7500	3500	0.59	2.17	33.60	15	0.15	0.013	0.00	1.19	77%	2.29	2.69	130.00	127.12	127.07
	UC 2.0	ES 25.0	0	0	0	0.00	6.50	49.20	24	0.15	0.013	0.04	0.07	68%	3.05	9.42	135.00	127.07	127.00
	CB 19.0	CB 20.0	0	22000	0	1.51	1.51	150.00	12	0.50	0.013	0.27	0.75	57%	3.35	2.71	133.65	129.20	128.45
	CB 20.0	CB 21.0	0	20000	0	1.37	2.88	150.00	15	0.50	0.013	0.30	0.75	60%	3.94	4.91	133.65	128.45	127.70
	CB 21.0	UC 2.0	0	20000	4000	1.46	4.34	133.90	15	0.47	0.013	0.60	0.63	86%	4.11	4.76	133.65	127.70	127.07
	CB 5.0	BEND 5.1	0	9000	0	0.62	0.62	15.10	8	1.00	0.013	0.04	0.15	51%	3.48	1.30	133.10	126.42	126.27
	BEND 5.1	BEND 5.2	0	0	0	0.00	0.62	11.00	8	1.00	0.013	0.03	0.11	51%	3.48	1.30	133.50	126.27	126.16
	BEND 5.2	TEE 4.1	0	0	0	0.00	0.62	14.60	8	1.00	0.013	0.04	0.15	51%	3.48	1.30	133.50	126.16	126.01
	EX MH 9.0	MH 9.1	0	70000	0	4.80	4.80	12.60	36	3.44	0.013	0.00	0.43	8%	8.46	133.07	129.72	120.47	120.04
	ES 23.0	ES 24.0	0	11000	25000	1.29	1.29	47.40	18	1.00	0.013	0.01	0.47	18%	4.03	11.30	129.50	127.47	127.00



MC-4500 CHAMBER INSPECTION PORT DETAIL
N.T.S.

DRAFTED: MRA
DESIGNED: MRA
REVIEWED: ARA

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

CONSTRUCTION DETAILS

REVISIONS

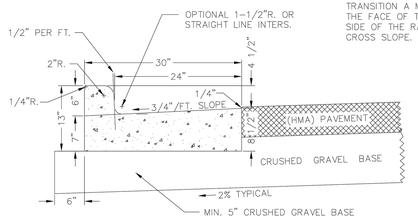
1	CITY REVIEW COMMENTS	06/08/15			

PEG JOB No. 426.00
PEG PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET
C-9
of
C-10

CONSTRUCTION DETAILS

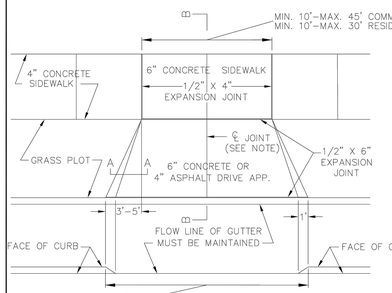
TYPICAL DETAIL OF STANDARD 30" COMBINATION CURB AND GUTTER FOR HOT MIX ASPHALT (HMA) PAVEMENT TYPE "A"



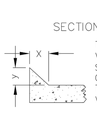
NOTE: AT ALL HANDICAP RAMP LOCATIONS THE CROSS SLOPE OF THE FLANGE CANNOT EXCEED 1/4"/FT. THIS MUST BE MAINTAINED THE WIDTH OF THE RAMP. TRANSITION A MINIMUM 5 FT. ALONG THE FACE OF THE FLANGE ON EITHER SIDE OF THE RAMP TO THE TYPICAL CROSS SLOPE.

TYPICAL DETAIL OF STANDARD 30" COMBINATION CURB AND GUTTER FOR HMA TYPE "A"	
CITY OF WAUKESHA ENGINEERING DIVISION	
APPROVED BY: PAUL G. DAY, P.E. CITY ENGINEER JANUARY, 2008 DATE	
CHECKED BY:	DRAWN BY: B.C.Z.

TYPICAL DETAIL OF STANDARD DRIVE APPROACH



SECTION A - A



THE VALUE FOR X WILL VARY FROM 0" AT THE SIDEWALK TO 1" AT THE CURB.
THE VALUE FOR Y WILL VARY FROM 0" TO 6"

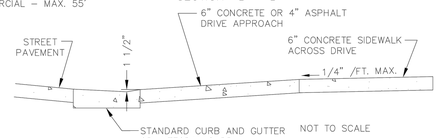
NOTE: DRIVEWAYS 10' TO 20' WIDE SHALL HAVE ONE ℄ JOINT. DRIVEWAYS 21' TO 30' WIDE SHALL HAVE TWO ℄ JOINTS EQUALLY SPACED.

1/2" X 6" EXPANSION JOINT AT THE FACE OF WALK AND BACK OF CURB IS REQUIRED ONLY FOR CONCRETE DRIVE APPROACH.

FLARE WIDTH, 3' MIN. TO 5' MAX. (CAN BE WIDER WITH APPROVAL OF THE CITY ENGINEER)

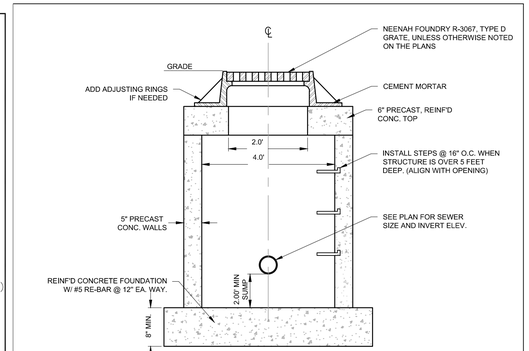
8" CONCRETE ALLOWED FOR APPROACH AND SIDEWALK FOR HEAVY TRAFFIC.

SECTION B - B



NOT TO SCALE

TYPICAL DETAIL OF STANDARD DRIVE APPROACH	
CITY OF WAUKESHA ENGINEERING DIVISION	
APPROVED BY: PAUL G. DAY, P.E. CITY ENGINEER JANUARY, 2008 DATE	
CHECKED BY:	DRAWN BY: B.C.Z.

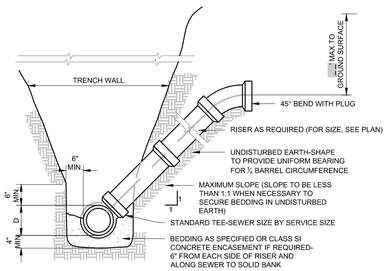


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA. OR AS INDICATED ON THE PLANS.

CATCH BASIN

#302 10-04-12

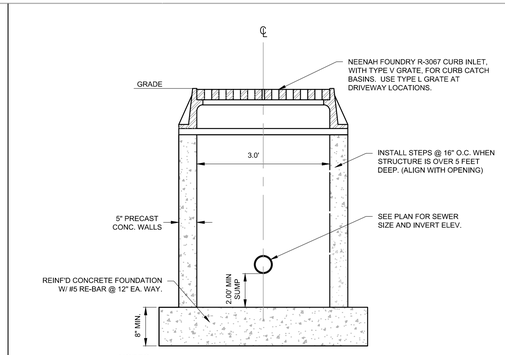


NOTES:

1. SANITARY SEWER RISERS TO BE CONSTRUCTED IN LIEU OF WYES WHERE SEWER DEPTH EXCEEDS [illegible]
2. THE CONTRACT UNIT PRICE FOR SANITARY SEWER SERVICE RISERS OF THE SIZE AND VERTICAL HEIGHT SPECIFIED SHALL INCLUDE THE TEE AND 45° BEND
3. THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER V.F. FOR SERVICE RISERS OF THE SIZE. TYPE AND VERTICAL HEIGHT SPECIFIED

TYPICAL RISER FOR SERVICE LATERAL

#402 10-15-12

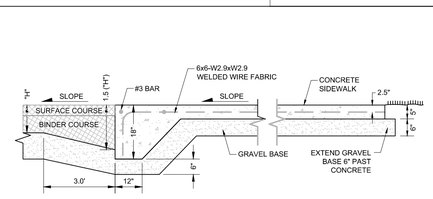


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.

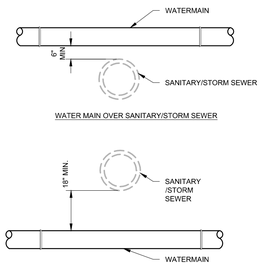
2' x 3' CATCH BASIN

#306 06/04/13



WALK FLUSH WITH PAVEMENT

#402 4/05/12



WATER MAIN OVER SANITARY/STORM SEWER

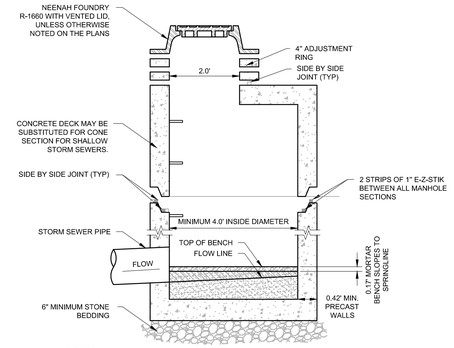
SANITARY/STORM SEWER OVER WATER MAIN

NOTES:

1. AT CROSSING, ONE FULL 18 FOOT LENGTH OF WATERMAIN SHALL BE CENTERED ON THE SEWER. MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 8 FEET.

WATER MAIN SEPARATION

#421 10-15-12



NOTES:

1. CLEAN UNDERSIDE OF ADJUSTING RING OR CAST IRON FRAME AND SET IN PLACE.
2. TUCK POINT MORTAR INTO ANNULAR CRACK AND BACKPLASTERED INSIDE AND OUTSIDE OF ALL JOINTS.
3. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT THE USE OF A FLAT TAPERED TOP.
4. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ OF ROADWAY.

STORM SEWER MANHOLE

#301 04/28/11

DRAFTED: MRA
DESIGNED: MRA
REVIEWED: ARA

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
15850 W. BLUEMOUND ROAD
BROOKFIELD, WI 53005
(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

901 NORTHVIEW ROAD
WAUKESHA, WI

CONSTRUCTION DETAILS

REVISIONS

1	CITY REVIEW COMMENTS	06/08/15			

PEG JOB No. 426.00
PEG PM ARA
START DATE 04/27/15
SCALE 1" = 40'

SHEET C-10 OF C-10

CONSTRUCTION DETAILS