CONSTRUCTION PLANS

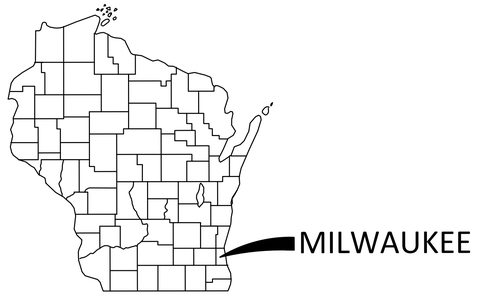
for

LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

for

TNT EXPRESS INC.

140 West Puetz Road, Oak Creek, Wisconsin

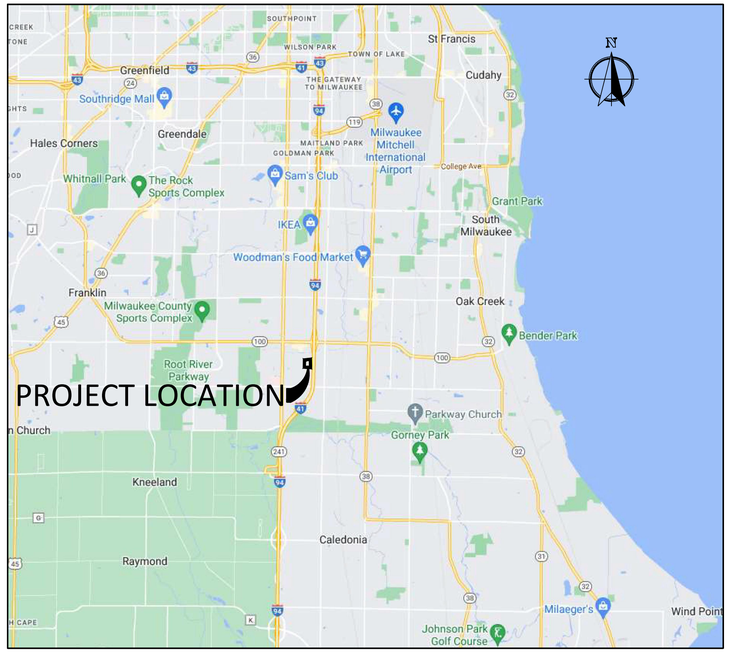


LEGEND

Description	Existing	Description	Existing	Proposed
EDGE OF WOODS		WATER SHUT OFF		
DECIDUOUS TREE		WATER MAIN VALVE		
DECIDUOUS TREE REMOVAL		HYDRANT		
CONIFEROUS TREE		WATER MAIN REDUCER		
CONIFEROUS TREE REMOVAL		SANITARY MANHOLE		
BUSH		SANITARY CLEAN OUT		
SOIL BORING	SB 1	STORM MANHOLE		
TELEPHONE BOX	T	CATCH BASIN		
GUY WIRE		LIGHT POLE		
UTILITY POLE		ENDWALL		
GAS VALVE	GV	STORM SEWER	STM	
GAS METER		SANITARY SEWER	SAN	
SEPTIC VENT		WATERMAIN	W	
ELECTRIC MANHOLE		CONTOURS	650	650
COMMUNICATION MANHOLE		FIRE PROTECTION		FP
WATER MANHOLE		UTILITY CROSSING		
HVAC UNIT		DITCH OR SWALE		
UNDERGROUND VAULT		CULVERT	12" CMP	12" CMP
SECTION CORNER		RAILROAD TRACKS		
MAIL BOX		FENCE	X X	
GUARD POST		NO VEHICULAR ACCESS		
STREET SIGN		UNDERGROUND ELECTRIC	E	
ELECTRIC PEDESTAL		UNDERGROUND GAS MAIN	G	
ELECTRIC METER		UNDERGROUND COMMUNICATIONS	CM	
PAD MOUNT TRANSFORMER		SILT FENCE	//	
FOUND IRON PIPE		OVERHEAD ELECTRIC	OHE	
SET IRON PIPE		FORCE MAIN		

ABBREVIATIONS

BASE LINE	BL	INVERT ELEVATION	IE
LONG CORD OF CURVE	CHD	LENGTH OF CURVE	ARC
CURB AND GUTTER	C&G	MANHOLE	MH
CATCH BASIN	CB	NORMAL WATER LEVEL	NWL
CENTERLINE	CL	POINT OF CURVATURE	PC
EDGE OF PAVEMENT	EOP	POINT OF TANGENCY	PT
FINISHED FIRST FLOOR	FFF	TANGENCY OF CURVE	TAN
FINISHED GRADE	FG	POINT OF VERTICAL INTERSECTION	PVI
FLOW LINE	FL	RADIUS	R
FLOODPLAIN	FP	RIGHT OF WAY	ROW
ORDINARY HIGH WATER MARK	OHWM	SANITARY SEWER	SAN
TOP OF BANK	TOB	STORM SEWER	STM
TOP OF CURB	TOC	TOP OF FOUNDATION	TOF
TOP OF WALK	TOW	WATER MAIN	WM



DIGGERS HOTLINE
Call 811 or (800) 242-8511
www.DiggersHotline.com

UTILITY NOTE

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.

SHEET INDEX

OWNER

TNT EXPRESS INC.
5825 W. RYAN ROAD
FRANKLIN, WI 53132
PHONE: 310-740-6663

GOVERNING AGENCIES CONTACTS

CITY OF OAK CREEK - ENGINEERING DIVISION
MATTHEW SULLIVAN, CITY ENGINEER
OFFICE: 414-766-7000
EMAIL: msullivan@oakcreekwi.gov

CITY OF OAK CREEK - ENGINEERING DIVISION
SUE WINNEN, ENVIRONMENTAL DESIGN ENGINEER
OFFICE: 414-766-7002
EMAIL: swinnen@oakcreekwi.gov

CITY OF OAK CREEK - COMMUNITY DEVELOPMENT
DOUG SEYMOUR, DIRECTOR OF COMMUNITY DEVELOPMENT
OFFICE: 414-766-7025
EMAIL: dseymour@oakcreekwi.gov

CITY OF OAK CREEK - COMMUNITY DEVELOPMENT
KARI PAPELBON, SENIOR PLANNER
OFFICE: 414-766-7027
EMAIL: kpapelbon@oakcreekwi.gov

OAK CREEK WATER AND SEWER UTILITY - ENGINEERING
BRIAN JOHNSTON, UTILITY ENGINEER
OFFICE: 414-766-6624
EMAIL: bjohnston@oakcreekwi.gov

PUBLIC UTILITY CONTACTS

TIME WARNER CABLE
STEVE CRAMER
UTILITY COORDINATOR
OFFICE: 414-277-4045
EMAIL: steve.cramer@twcable.com
EMERGENCY NUMBER: (800) 627-2288

AT&T
MIKE TOYEK
OFFICE: 262-636-0549
EMAIL: mt1734@att.com

TDS TELECOM
SOUTHEAST WISCONSIN
OFFICE: 877-483-7142

WE-ENERGIES
TOM SCHULTZ
OFFICE: 262-552-3229
EMAIL: tom.schultz@we-energies.com

NATURAL GAS EMERGENCY: (800) 261-5325
ELECTRICAL EMERGENCY: (800) 662-4797

AMERICAN TRANSMISSION COMPANY
BRIAN MCGEE
OFFICE: 262-506-6895
EMAIL: bmcgee@atcllc.com
EMERGENCY NUMBER: (800) 972-5341

Nielsen Madsen + Barber
CIVIL ENGINEERS AND LAND SURVEYORS
1458 Horizon Blvd. Suite 200, Racine, WI. 53406
Tele: (262)634-5588 Website: www.nmbsc.net

LOTS 6, 7 & 8 BLOCK 5
SOUTHBRANCH INDUSTRIAL PARK
CONSTRUCTION PLANS
FOR
TNT EXPRESS INC
CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE

PROJ. MGR:	MRM
DRAFTED:	JWR
DATE:	6-26-2023
CHECKED:	ALJ
DATE:	6-27-2023

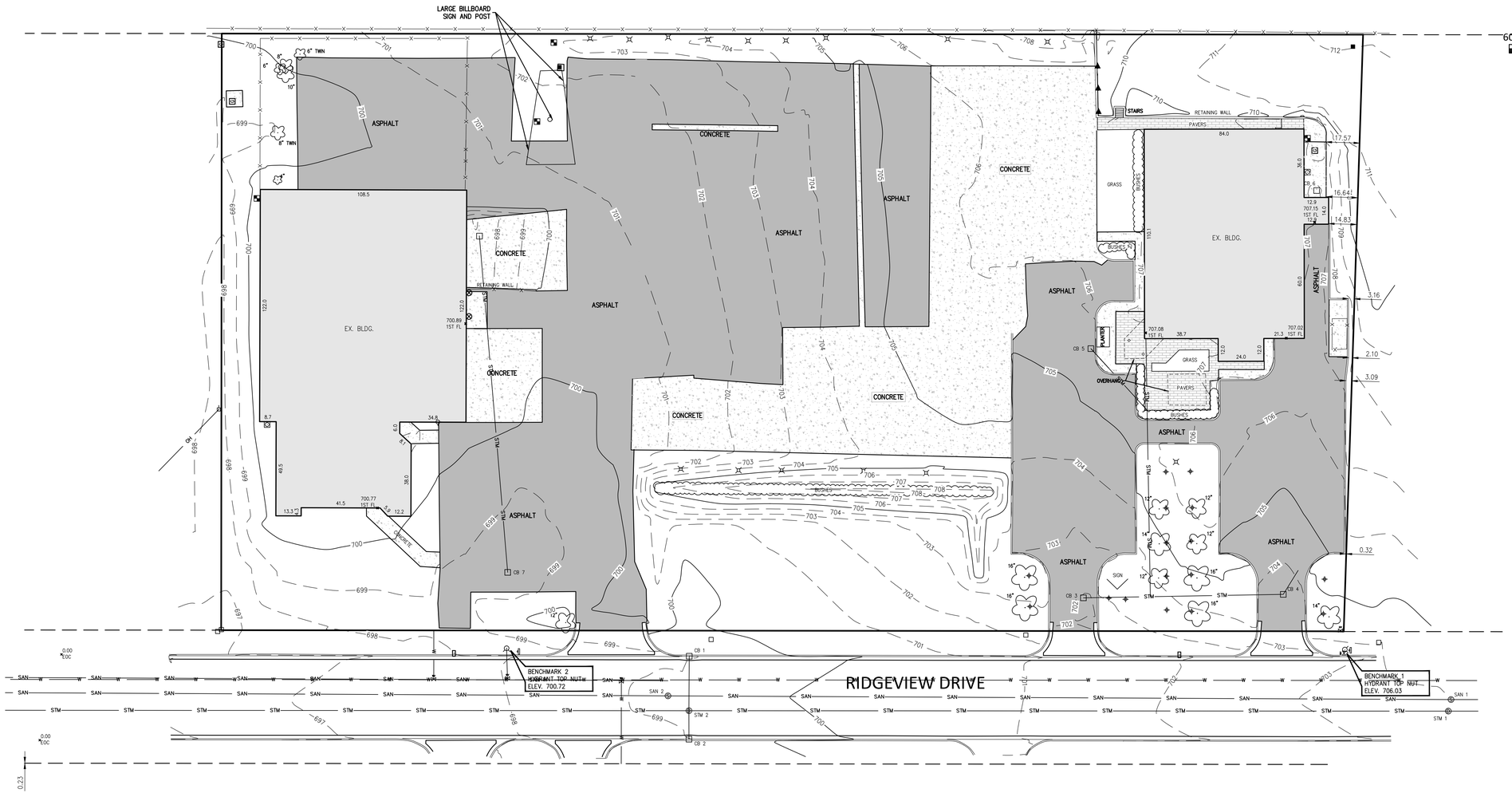
2023.0068.01

SHEET
C-1

ISSUE FOR APPROVAL: 8-29-2023

Friday, October 06, 2023 3:08:22 PM

INTERSTATE 94



N

60' 30' 0' 30' 60'

SCALE 1"=30'

EXISTING UTILITY DATA

STM 1
RIM 703.72
IE. 21" N 697.57
IE. 21" S 697.67

STM 2
RIM 699.32
IE. 24" N 693.02
IE. 21" S 693.27
IE. 12" E/W 693.92

STM 3
RIM 695.22
IE. 24" NW 688.52
IE. 24" S 688.77

CB 1
RIM 698.91
IE. 12" W 693.81
IE. 4" N 696.86
IE. 4" S 696.56

CB 2
RIM 698.95
IE. 12" E 693.80
IE. 4" N 696.10
IE. 4" S 696.50

CB 3
RIM 701.93
IE. 6" S 698.53

CB 4
RIM 703.42
IE. 6" N 700.22
IE. 4" SE 701.02

CB 5
RIM 705.61
IE. 8" SW 701.51

CB 6
RIM 706.45
(FILLED W/DEBRIS)

CB 7
RIM 698.36
IE. 4" E 695.01

SAN 1
RIM 703.83

SAN 2
RIM 699.36

NOTES

BEARING BASE: GRID NORTH, WISCONSIN COORDINATE SYSTEM, SOUTH ZONE. BASED UPON NAD 1983 / 2011.

ALL ELEVATIONS REFER TO NAVD 1988 (12).

DIGGERS HOTLINE
Call 811 or (800) 242-8511
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LEGEND

- STORM MANHOLE
- CATCH BASIN
- STORM SEWER
- HYDRANT
- WATER VALVE
- WATER MAIN
- FLAG POLE
- SANITARY MANHOLE
- SANITARY SEWER
- FIRE DEPT. CONNECTOR
- GENERATOR
- ELECTRIC PEDESTAL
- ELECTRIC METER
- GUARD POST
- POWER POLE
- MAILBOX
- PAD MOUNT TRANSFORMER
- GAS METER
- COMMUNICATION BOX
- SIGN
- FLOOD LIGHT
- DECIDUOUS TREE
- CONIFEROUS TREE
- FENCE
- OVERHEAD WIRES
- 1-1/4" IRON PIPE FOUND
- 3/4 REBAR SET
- 2" IRON PIPE FOUND

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LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

EXISTING CONDITIONS

FOR

TNT EXPRESS INC

CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE
1	ADD DIMENSIONS FROM THE PAVEMENT TO THE SOUTH PROPERTY LINE	ALJ	10-06-23

PROJ. MGR:	MRM
DRAFTED:	JWR
DATE:	6-26-2023
CHECKED:	ALJ
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2023.0068.01

SHEET
C-2

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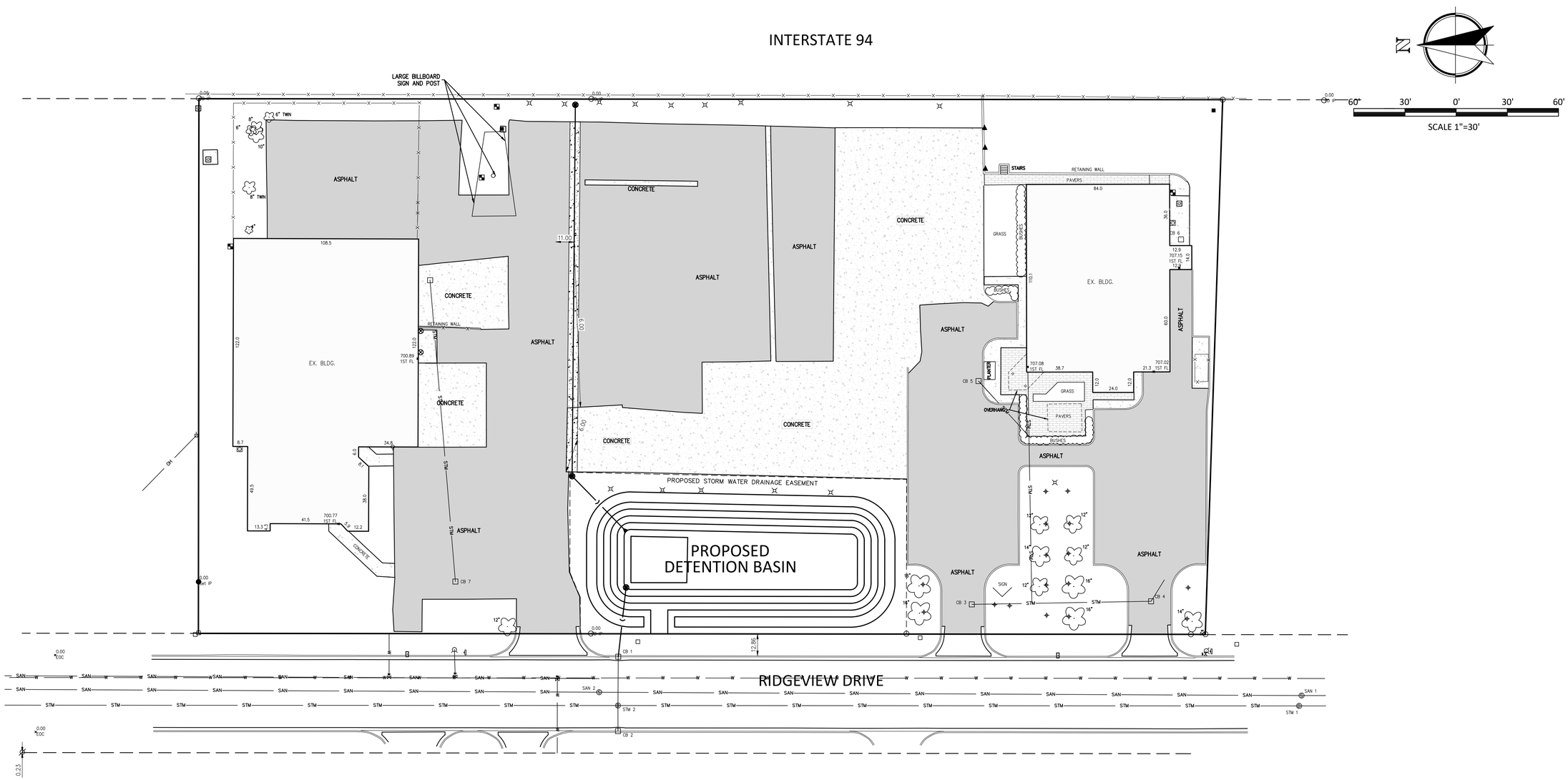

SITE LEGEND

HEAVY-DUTY CONCRETE PAVEMENT

SITE INFORMATION

186,608 s.f.	TOTAL LOT AREA

IMPERVIOUS AREAS

26,203 s.f.	BUILDING AREAS
68,894 s.f.	ASPHALT PAVEMENT AREAS
29,493 s.f.	CONCRETE PAVEMENT AREAS
2,235 s.f.	PAVER BRICK PAVEMENT AREAS
126,825 s.f.	

PERVIOUS AREAS

59,783 s.f.	LAWN/LANDSCAPE AREAS

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LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

DIMENSIONED SITE PLAN

FOR

TNT EXPRESS INC

CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE

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ISSUE FOR APPROVAL: 8-28-2023

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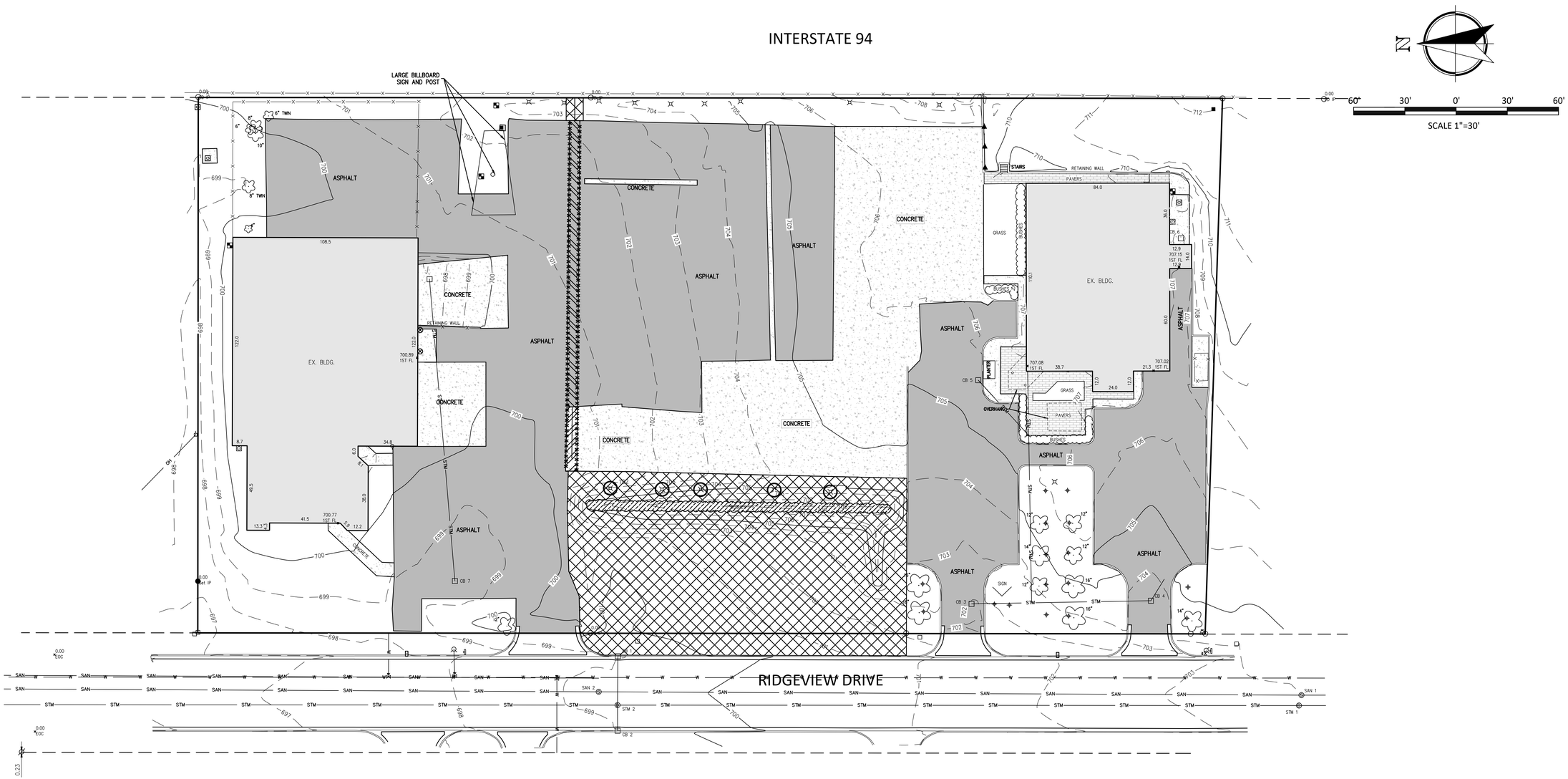

DEMOLITION LEGEND

- SAW CUT PAVEMENT (FULL DEPTH)
- STRIP & SALVAGE TOPSOIL
- REMOVE ASPHALT PAVEMENT
- REMOVE CONCRETE PAVEMENT
- RELOCATE ARBORVITAE TREES
- SALVAGE & REINSTALL ELECTRICAL PEDESTAL

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LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

SITE DEMOLITION PLAN

FOR

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CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

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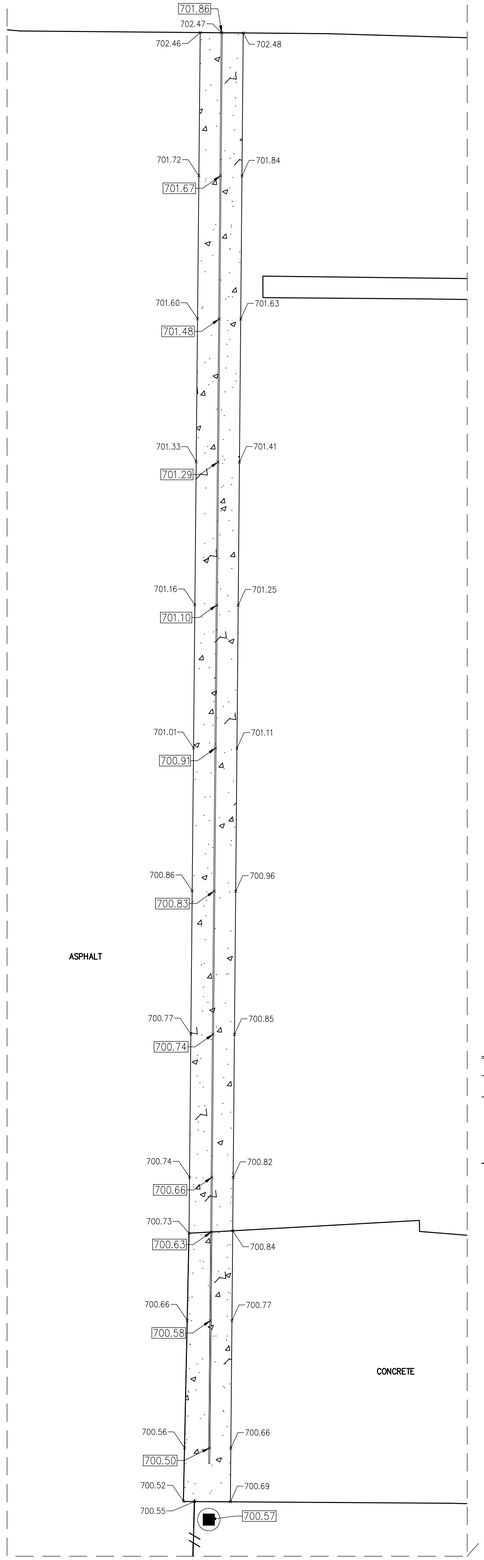
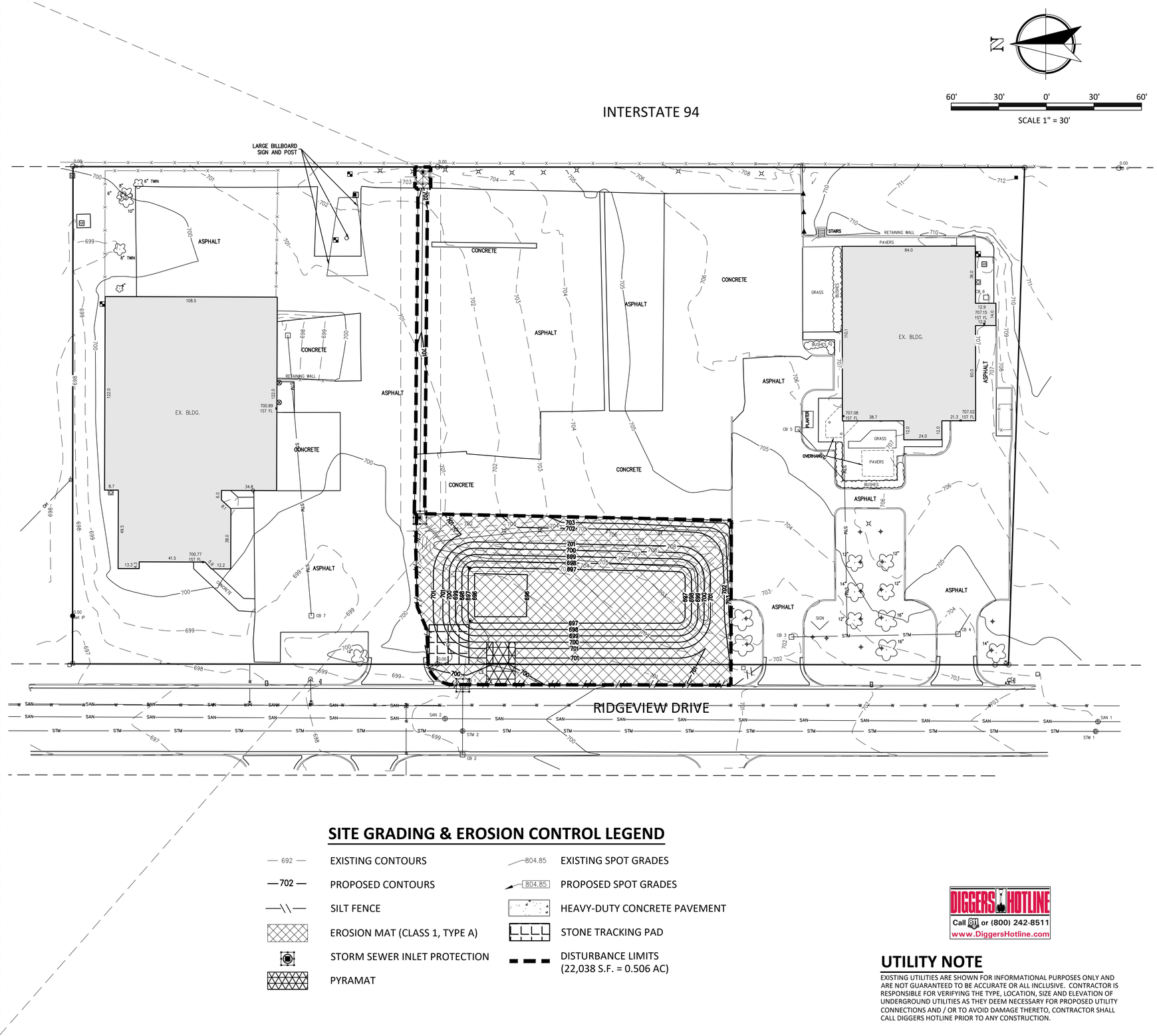
SCALE 1" = 10'





N

60' 30' 0' 30' 60'

SCALE 1" = 30'

SITE GRADING & EROSION CONTROL LEGEND

692	EXISTING CONTOURS
702	PROPOSED CONTOURS
	SILT FENCE
	EROSION MAT (CLASS 1, TYPE A)
	STORM SEWER INLET PROTECTION
	PYRAMAT
804.85	EXISTING SPOT GRADES
804.85	PROPOSED SPOT GRADES
	HEAVY-DUTY CONCRETE PAVEMENT
	STONE TRACKING PAD
	DISTURBANCE LIMITS (22,038 S.F. = 0.506 AC)

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LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

SITE GRADING & EROSION CONTROL PLAN

FOR

TNT EXPRESS INC

CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

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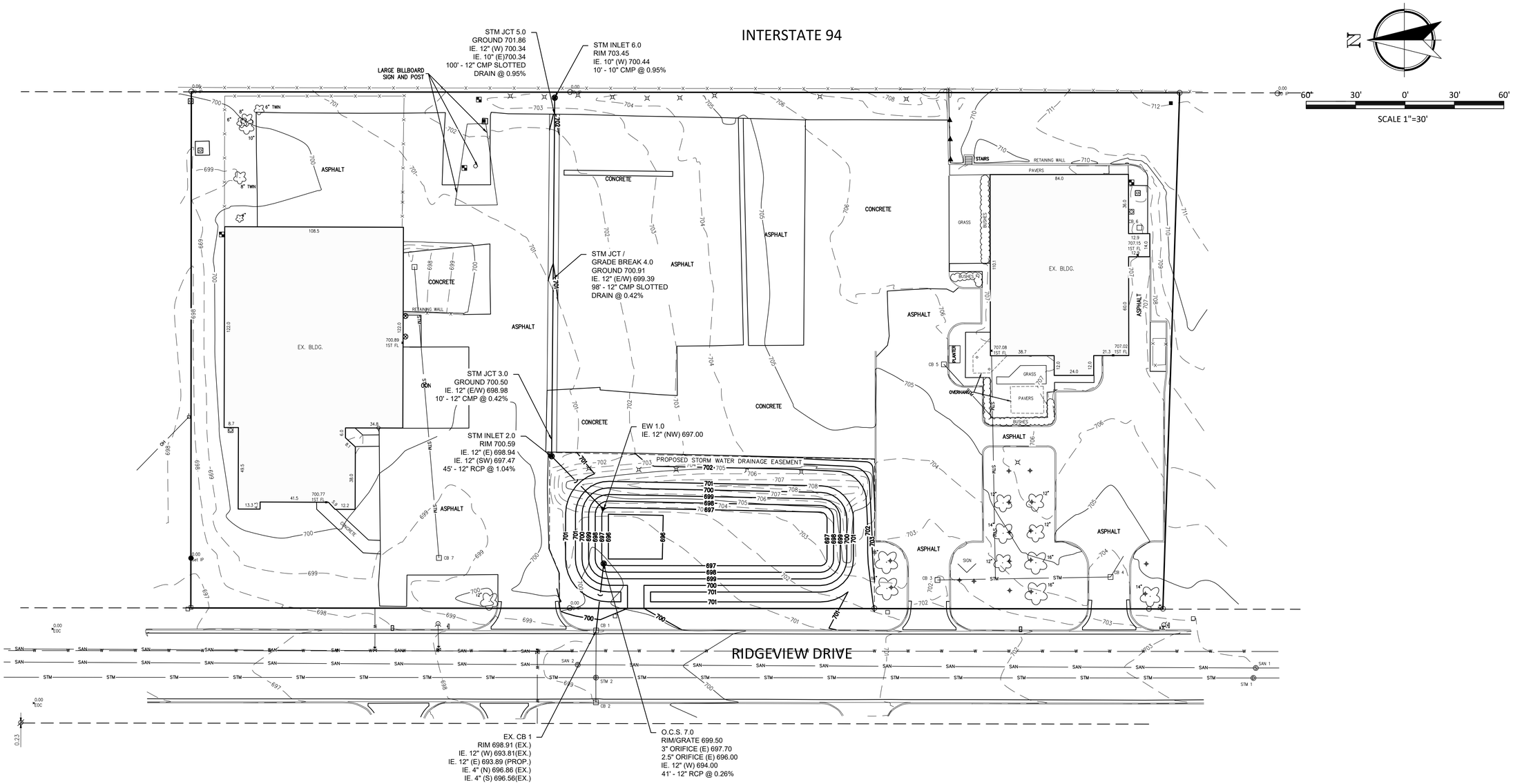

STORM SEWER LEGEND

STM — EXISTING STORM SEWER

PROPOSED STORM SEWER

NOTE

1. ALL EXISTING STORM PIPING AND STRUCTURES TO BE JET RODDED AND VACUUM CLEANED TO THE PUBLIC STORM SEWER MAIN.

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LOTS 6, 7 & 8 BLOCK 5
SOUTHBRANCH INDUSTRIAL PARK
STORM SEWER PLAN
FOR
TNT EXPRESS INC
CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

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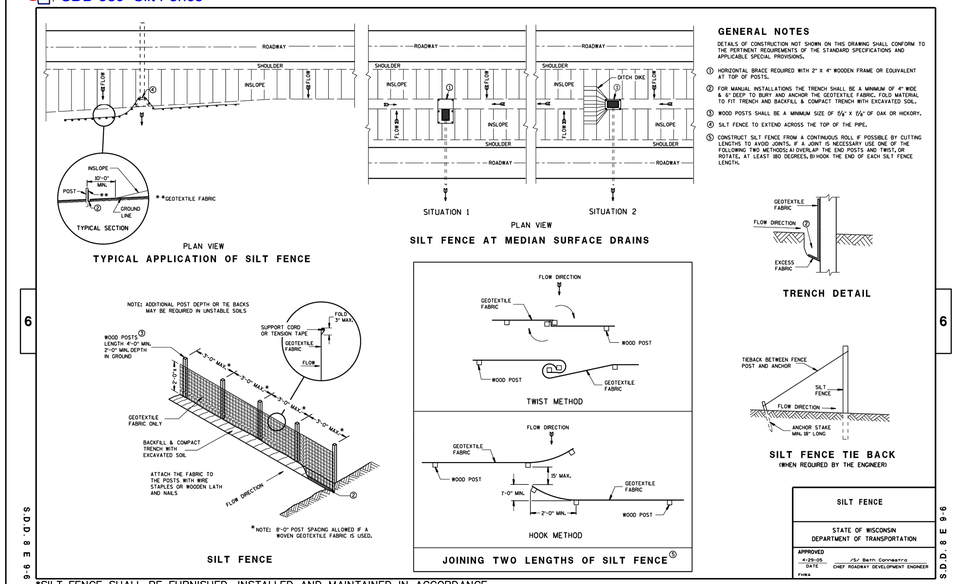
SHEET
C-6

ISSUE FOR APPROVAL: 8-28-2023

Friday, October 06, 2023 3:08:50 PM

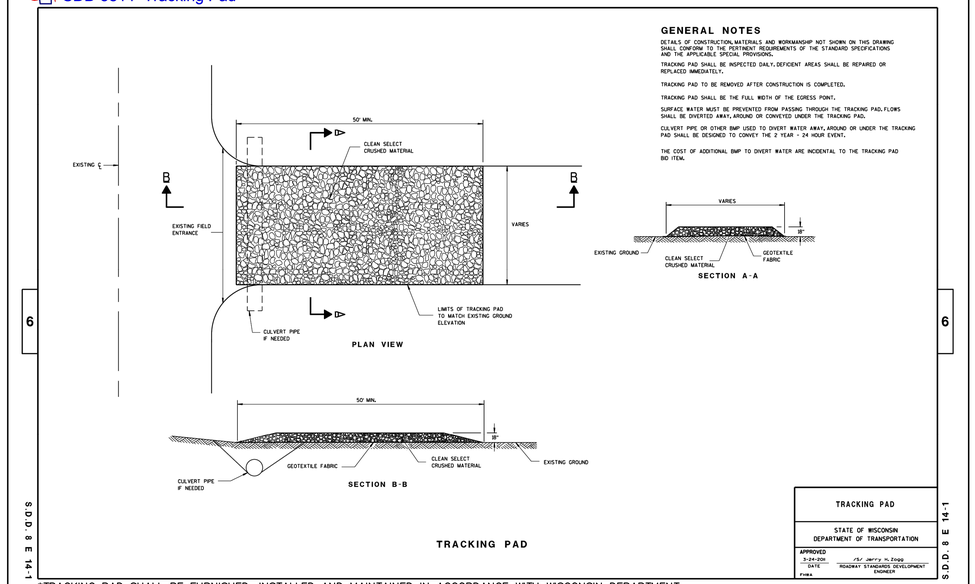
SDD 8e9 Silt Fence



*SILT FENCE SHALL BE FURNISHED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD 1056.

1 SILT FENCE DETAIL — N.T.S.

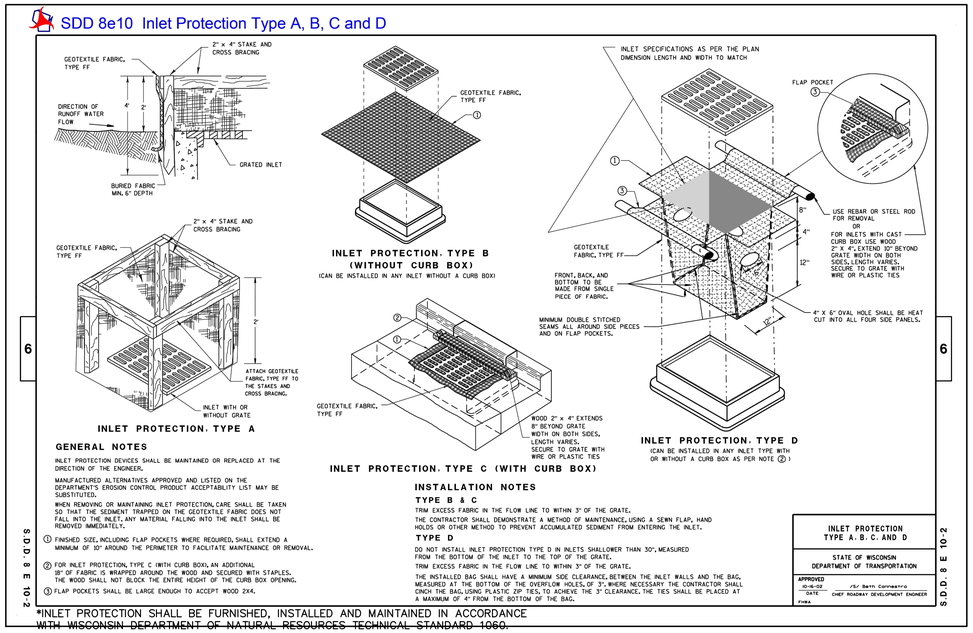
SDD 8e14 Tracking Pad



*TRACKING PAD SHALL BE FURNISHED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD 1057 INCLUDING PAVEMENT CLEANING WHEN NECESSARY.

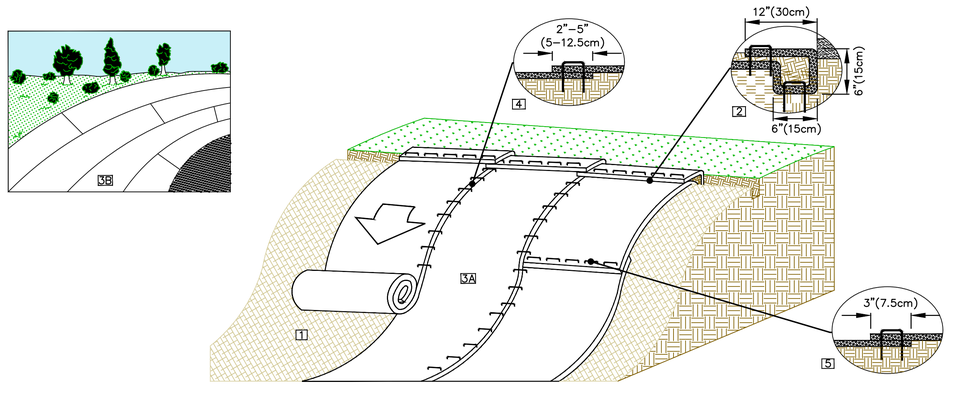
2 TRACKING PAD DETAIL — N.T.S.

SDD 8e10 Inlet Protection Type A, B, C and D



*INLET PROTECTION SHALL BE FURNISHED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD 1060.

3 INLET PROTECTION DETAIL — N.T.S.



4 SLOPE INSTALLATION OF EROSION MAT DETAIL — N.T.S.

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1458 Horizon Blvd. Suite 200, Racine, WI. 53406
Tele: (262)634-5588 Website: www.nmbsc.net

LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

TYPICAL SECTIONS & CONSTRUCTION DETAILS

FOR

TNT EXPRESS INC

CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE

PROJ. MGR: MRM
DRAFTED: JWR
DATE: 6-26-2023
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SHEET C-7

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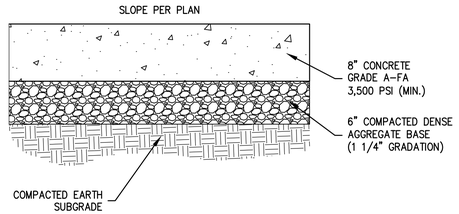
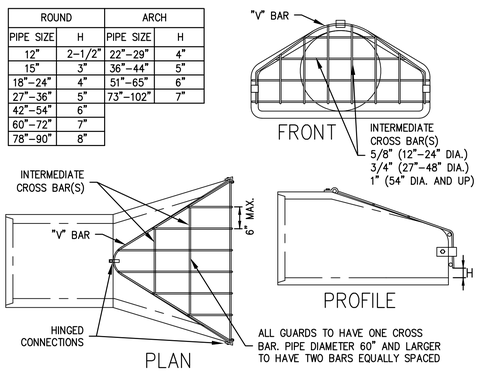
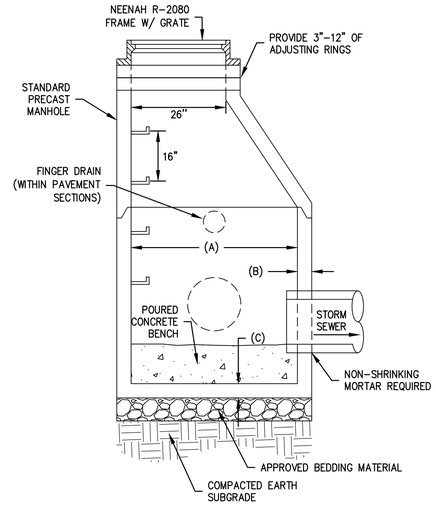


1 HEAVY-DUTY CONCRETE PAVEMENT (8") (TYPICAL SECTION) N.T.S.

ROUND		ARCH	
PIPE SIZE	H	PIPE SIZE	H
12"	2-1/2"	22"-29"	4"
15"	3"	36"-44"	5"
18"-24"	4"	51"-65"	6"
27"-36"	5"	73"-102"	7"
42"-54"	6"		
60"-72"	7"		
78"-90"	8"		



2 TRASH GUARD FOR FLARED ENDS DETAIL N.T.S.



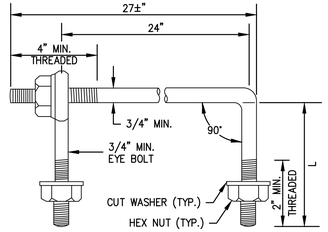
STRUCTURE DIAMETER (A)*	MINIMUM WALL THICKNESS (B)**	MINIMUM BASE AND TOP THICKNESS (C)**
4'	5"	6"
5'	6"	8"
6'	7"	8"
7'	8"	8"
8'≥	9"	8"

*STRUCTURE DIAMETER SHALL BE STANDARD 48" UNLESS OTHERWISE NOTED ON PLAN

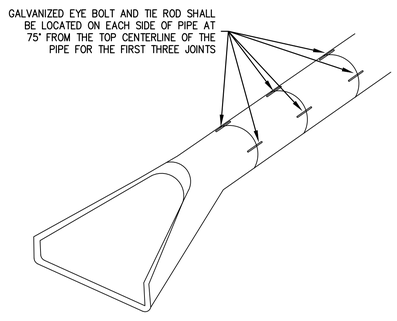
**MINIMUM THICKNESS SHALL NOT BE LESS THAN THAT REQUIRED TO MEET AASHTO H-20 LOADINGS

3 STANDARD STORM SEWER MANHOLE DETAIL N.T.S.

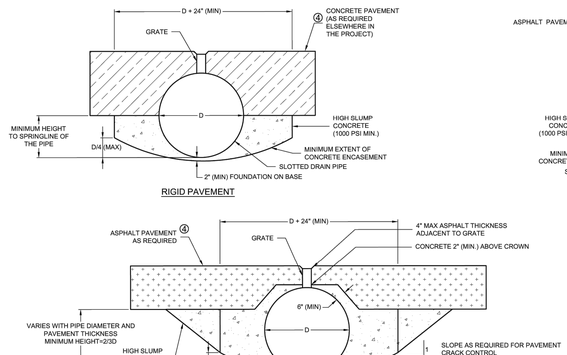
EYE BOLT DIMENSION TABLE		
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4-1/2"	6-1/4"
30"	5"	7"
36"	5-1/2"	7"
42"	6"	
48"	6-1/2"	
60"	7-1/2"	
66"	8-1/2"	



GALVANIZED EYE BOLT DETAIL



4 REINFORCED CONCRETE JOINT TIE PIPE DETAIL N.T.S.



NOTES

1 6" MINIMUM GRATE DEPTH, WITH THE GRATE (AND EXTENDERS IF REQUIRED) WELDED AT EVERY CORRUGATION TANGENT.

2 GRATE IS RECESSED 1/4" MINIMUM BELOW TRAFFIC SURFACE.

3 DETAILS APPLY TO AIRCRAFT, OFF HIGHWAY, AND LOADS WHERE TIRE PRESSURES ARE 195 PSI MAXIMUM. SOME SITE CONDITIONS AND LOADING/PIPE SIZE COMBINATIONS MAY HAVE ADDITIONAL REQUIREMENTS.

4 PAVEMENT AS REQUIRED ELSEWHERE IN THE PROJECT. IF CONCRETE PAVEMENT ELSEWHERE IS REINFORCED, CONTINUE THIS SAME REINFORCEMENT INTO THE SLOTTED DRAIN ZONE. MINIMUM STEEL REINFORCEMENT AS REQUIRED TO MINIMIZE TEMPERATURE CRACKING OF THE CONCRETE IS RECOMMENDED IN THE SLOTTED DRAIN ZONE.

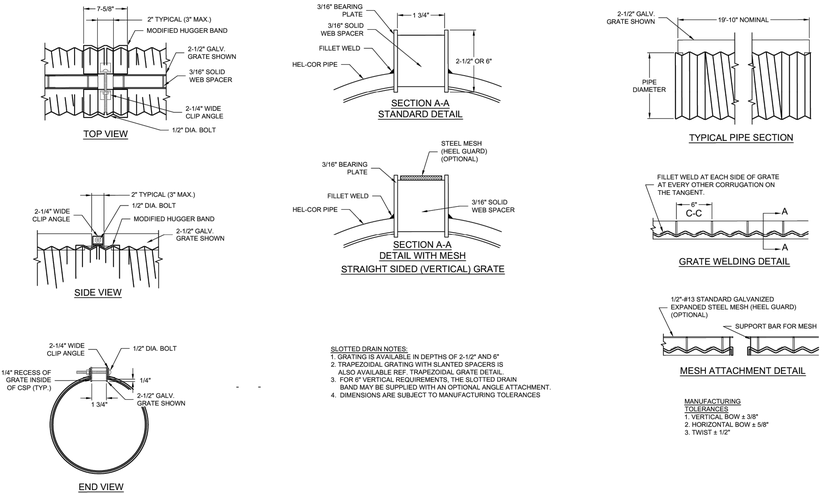
SLOTTED DRAIN CORRUGATED STEEL PIPE MINIMUM GAGE REQUIREMENTS FOR AIRCRAFT & HEAVY LOADING

SLOTTED DRAIN CSP	6" GRATE	
DIA. D (INCHES)	ASPHALT PAVEMENT	CONCRETE PAVEMENT
12 - 18	16GA	
21 - 36	14GA	

NOTES:
1. INSTALLATION MUST CONFORM TO STANDARD INSTALLATION DETAILS USING A 1,000 PSI MINIMUM HIGH SLUMP CONCRETE BACKFILL.
2. GRATE MUST BE 6" TALL. 2-1/2" IS NOT AN OPTION FOR AIRCRAFT OR HEAVY LOADS.

5 BACKFILL DETAIL FOR AIRCRAFT & HEAVY LOADING

NOT TO SCALE



6 SLOTTED DRAIN DETAIL (STRAIGHT SIDED GRATES)

NOT TO SCALE

0-SLOTTED DRAIN DETAIL GRID

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH PIPE SOLUTIONS
CONTECH CONTRACT DRAWING

SLOTTED DRAIN
BACKFILL DETAIL FOR AIRCRAFT & HEAVY LOADING

PROJECT No.: | BID No.: | DATE: 11/10/2021
DESIGNED: | DRAWN:
CHECKED: | APPROVED: -----
SHEET NO.: 2 OF 6

SLOTTED DRAIN
STANDARD DETAILS
STRAIGHT SIDED GRATES

PROJECT No.: | BID No.: | DATE: 11/10/2021
DESIGNED: | DRAWN:
CHECKED: | APPROVED: -----
SHEET NO.: 4 OF 6

Nielsen Madsen + Barber
CIVIL ENGINEERS AND LAND SURVEYORS
1458 Horizon Blvd. Suite 200, Racine, WI. 53406
Tele: (262)634-5588 Website: www.nmbsc.net

LOTS 6, 7 & 8 BLOCK 5 SOUTHBRANCH INDUSTRIAL PARK

TYPICAL SECTIONS & CONSTRUCTION DETAILS

FOR

TNT EXPRESS INC

CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE

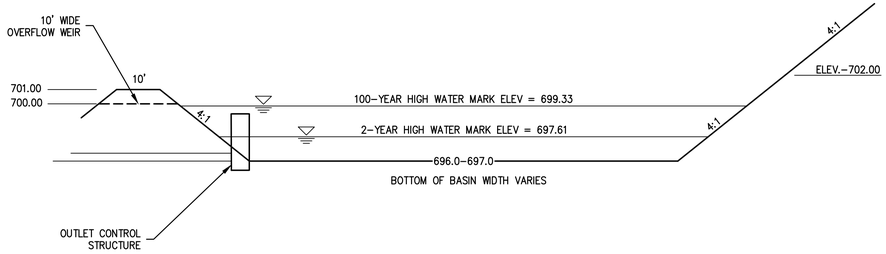
PROJ. MGR: MRM
DRAFTED: JWR
DATE: 6-26-2023
CHECKED: ALJ
DATE: 6-27-2023

2023.0068.01

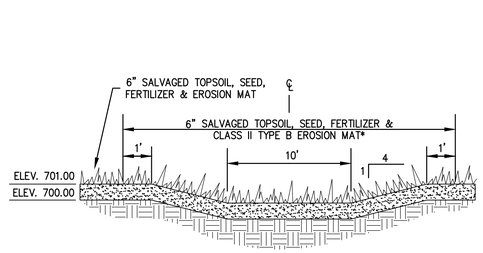
SHEET C-8

ISSUE FOR APPROVAL: 8-28-2023

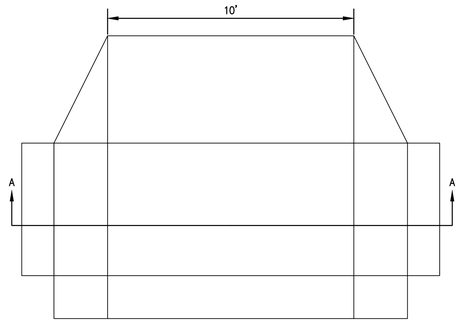
Friday, October 06, 2023 3:09:03 PM



1 **DRY DETENTION BASIN CROSS SECTION (A-A) DETAIL** — N.T.S.

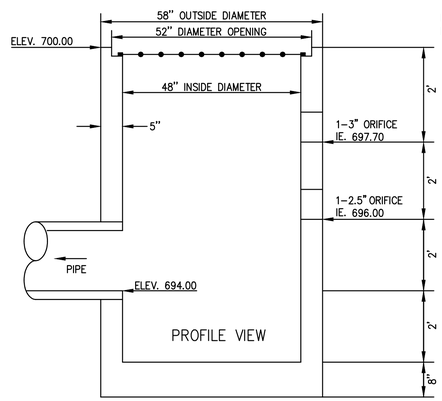


SECTION A-A

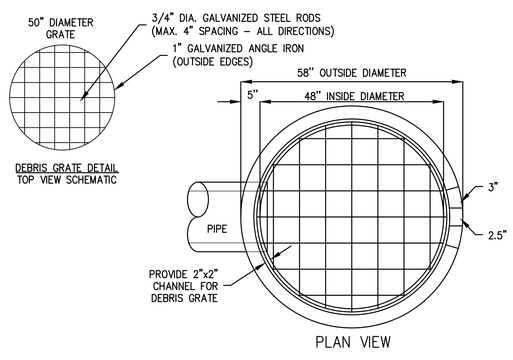


*CLASS II TYPE B EROSION MAT SHALL EXTEND FROM THE TOP OF BERM TO THE BOTTOM OF THE BERM.

2 **RETENTION BASIN OVERFLOW WEIR DETAIL** — N.T.S.



NOTE:
DEBRIS GRATE TO BE SECURED WITH STAINLESS STEEL HARDWARE TO STRUCTURE IN FOUR (4) LOCATIONS



3 **OUTLET CONTROL STRUCTURE DETAIL** — N.T.S.

Nielsen Madsen + Barber
CIVIL ENGINEERS AND LAND SURVEYORS
1458 Horizon Blvd. Suite 200, Racine, WI. 53406
Tele: (262)634-5588 Website: www.nmbsc.net

LOTS 6, 7 & 8 BLOCK 5
SOUTHBRANCH INDUSTRIAL PARK
TYPICAL SECTIONS & CONSTRUCTION DETAILS
FOR
TNT EXPRESS INC
CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE

PROJ. MGR:	MRM
DRAFTED:	JWR
DATE:	6-26-2023
CHECKED:	ALJ
DATE:	6-27-2023

2023.0068.01

SHEET
C-9

ISSUE FOR APPROVAL: 8-28-2023

Friday, October 06, 2023 3:09:08 PM

DEMOLITION NOTES

THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL AT A LOCATION APPROVED (BY ALL GOVERNING AUTHORITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PAVEMENTS, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLY COMPACTED STRUCTURAL FILL MATERIAL PER THE SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER AND OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION, SITE CLEARING, AND DISPOSAL.

THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE LAND SURVEYOR AND ENGINEER OF RECORD ASSUME NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ON-SITE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND DISCONNECTION OF UTILITY SERVICES TO THE EXISTING BUILDINGS PRIOR TO DEMOLITION (OR MODIFICATION) OF THE BUILDINGS.

ALL EXISTING SEWERS, PIPING, AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.

ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CALL DIGGERS HOTLINE AT 1-800-242-8511 A MINIMUM OF 3 WORKING DAYS PRIOR TO EXCAVATION ACTIVITIES TO LOCATE AND MARK ALL UNDERGROUND UTILITIES.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HIRE A PRIVATE UTILITY LOCATING SERVICE TO LOCATE AND MARK ALL UNDERGROUND PRIVATE UTILITIES.

CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH SIGNS, FENCING, BARRICADES, ENCLOSURES, ETC., (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE CONSTRUCTION MANAGER. TEMPORARY CLOSURE OF ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION.

CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING THE COURSE OF WORK.

PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

EXISTING ITEMS TO REMAIN INCLUDING, BUT NOT LIMITED TO, FENCES, SIGNS, UTILITIES, BUILDINGS, TREES, PAVEMENTS, AND LIGHT POLES SHALL BE CAREFULLY PROTECTED DURING THE DEMOLITION PROCESS. ANY DAMAGE SUSTAINED TO ITEMS TO REMAIN IN PLACE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO THE DISTRICT.

PROPERTY CORNERS AND BENCHMARKS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO THE DISTRICT.

CONTRACTOR SHALL LIMIT PAVEMENT REMOVALS TO ONLY THOSE AREAS WHERE IT IS NECESSARY AS SHOWN ON THESE CONSTRUCTION PLANS. CONCRETE SIDEWALK AND CURB & GUTTER IS TO BE REMOVED TO NEAREST JOINT IN ORDER TO ACCOMMODATE PROPOSED IMPROVEMENTS. IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENTS AND/OR OTHER IMPROVEMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPAIR OF DAMAGED PAVEMENT AND OTHER ITEMS AT NO ADDITIONAL COST TO THE DISTRICT.

IF PREVIOUSLY UNIDENTIFIED HAZARDOUS, CONTAMINATED MATERIALS, OR OTHER ENVIRONMENTAL RELATED CONDITIONS ARE DISCOVERED, STOP WORK IMMEDIATELY AND NOTIFY THE PROJECT CONSTRUCTION MANAGER FOR ACTION TO BE TAKEN. DO NOT RESUME WORK UNTIL SPECIFICALLY AUTHORIZED BY THE CONSTRUCTION MANAGER.

ASPHALT PAVEMENT AND BASE SHOWN TO BE "PULVERIZED AND RESHAPED" SHALL MEET THE GRADATION REQUIREMENTS OF SECTION 325.3 OF THE STATE SPECIFICATIONS.

A. MATERIAL SHALL BE CONTINUOUSLY PULVERIZED UNTIL 97% OR MORE WILL PASS THE 2" SIEVE.
B. THE PULVERIZING OPERATION SHALL INCORPORATE AS MUCH OF THE UNDERLYING AGGREGATE BASE AS POSSIBLE WITHOUT INCORPORATING ANY OF THE SUB-GRADE.
C. PULVERIZED ASPHALT PAVEMENT CAN BE USED AS AGGREGATE BASE COURSE BENEATH NEW CONCRETE PAVEMENT.
D. AT THE COMPLETION OF THE PROJECT, ALL EXCESS PULVERIZED MATERIAL SHALL BE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PROJECT SITE.

AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED, EXCESS, WASTE, STOCKPILED AND SPOIL MATERIAL IN ACCORDANCE WITH SECTION 205.3.12 OF THE "STATE SPECIFICATIONS". THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

SEE ELECTRICAL PLANS FOR SITE LIGHTING DEMOLITION.

SITE GRADING & SUB-GRADE PREPARATION

ALL EXISTING TOPSOIL AND OTHER NON-STRUCTURAL MATERIAL WITHIN THE PROPOSED BUILDING PADS, PAVEMENT SECTIONS AND STRUCTURAL FILL AREAS SHALL BE STRIPPED AND STOCKPILED AT THE LOCATION SHOWN OR AS DIRECTED BY THE GENERAL CONTRACTOR.

EXCAVATE, GRADE AND SHAPE SUBGRADE TO THE LINES AND GRADES SHOWN ON THE PLANS. SEE TYPICAL SECTIONS FOR PAVEMENT THICKNESS AND MATERIALS.

FOR STRUCTURAL FILL DEPTHS LESS THAN 20 FEET, THE DENSITY OF THE STRUCTURAL COMPACTED FILL AND SCARIFIED SUBGRADE AND GRADES SHALL NOT BE LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D-698) WITH THE EXCEPTION OF THE TOP 12 INCHES OF PAVEMENT SUBGRADE WHICH SHALL HAVE A MINIMUM IN-SITU DENSITY OF 100 PERCENT OF MAXIMUM DRY DENSITY, OR 5 PERCENT HIGHER THAN UNDERLYING FILL MATERIALS.

THE MOISTURE CONTENT OF COHESIVE SOIL SHALL NOT VARY BY MORE THAN -1 TO +3 PERCENT AND GRANULAR SOIL ±3 PERCENT OF THE OPTIMUM WHEN PLACED AND COMPACTED OR RECOMPACTED, UNLESS SPECIFICALLY RECOMMENDED / APPROVED BY THE SOILS ENGINEER MONITORING THE PLACEMENT AND COMPACTION. COHESIVE SOILS WITH MODERATE TO HIGH EXPANSIVE POTENTIALS (PI>15) SHOULD, HOWEVER, BE PLACED, COMPACTED AND MAINTAINED PRIOR TO CONSTRUCTION AT A MOISTURE CONTENT OF 3±1 PERCENT ABOVE OPTIMUM MOISTURE CONTENT TO LIMIT FUTURE HEAVE.

THE FILL SHALL BE PLACED IN LAYERS WITH A MAXIMUM LOOSE THICKNESS OF 9 INCHES. THE COMPACTION EQUIPMENT SHOULD CONSIST OF SUITABLE MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR SOIL COMPACTION. BULLDOZERS OR SIMILAR TRACKED VEHICLES ARE TYPICALLY NOT SUITABLE FOR COMPACTION.

UPON COMPLETION OF THE GRADING AND COMPACTION OF THE SUBGRADE, A PROOF ROLL SHALL BE CONDUCTED BY THE CONTRACTOR ON ALL SUBGRADES THAT RECEIVE DENSE AGGREGATE BASE COURSE. THE CONTRACTOR SHALL PROVIDE A FULLY LOADED QUAD-AXLE TRUCK (18 TON MINIMUM LOAD) TO PERFORM THE PROOF ROLL. CONTRACTOR SHALL COORDINATE THE PROOF ROLL WITH THE OWNER AND THE GENERAL CONTRACTOR'S GEOTECHNICAL ENGINEER.

SOIL COMPACTION IN ALL FILL AND EMBANKMENT AREAS SHALL BE APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER.

TEMPORARY SEEDING IS REQUIRED FOR ALL STOCKPILES AND OTHER EXPOSED LAND AREAS IF NOT ACTIVELY WORKED WITHIN 30 DAYS. AT THE COMPLETION OF THE PAVEMENT WORK, RE-SPREAD SALVAGED TOPSOIL OR IMPORT TOPSOIL AS NECESSARY TO PROVIDE A MINIMUM SIX-INCH (6") LAYER IN ALL LANDSCAPE AND LAWN AREAS. ALL DISTURBED AREAS SHALL BE RESTORED PER THE LANDSCAPE PLAN.

EXCESS TOPSOIL NOT BEING USED FOR THE PROJECT SHALL BE HAULED OFF-SITE.

EROSION & SEDIMENT CONTROL NOTES

THE EROSION AND SEDIMENT CONTROL PROVISIONS DETAILED ON THE DRAWINGS AND SPECIFIED HEREIN ARE THE MINIMUM REQUIREMENTS FOR EROSION CONTROL.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE ANY REVISIONS, ADJUSTMENTS OR PROPOSED ALTERATIONS TO THE CONSTRUCTION SEQUENCING AND/OR EROSION CONTROL PLANS. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ENGINEER OF RECORD AND REGULATORY OFFICIALS OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. MODIFICATIONS TO THE APPROVED EROSION CONTROL DESIGN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS IS ALLOWED IF MODIFICATIONS CONFORM TO BEST MANAGEMENT PRACTICES (BMP'S). ALL SIGNIFICANT DEVIATIONS FROM THE PLANS MUST BE SUBMITTED AND APPROVED BY THE CITY OF OAK CREEK.

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, REPAIR AND REMOVAL OF ALL EROSION CONTROL DEVICES REQUIRED FOR THE PROJECT WHICH SHALL BE DONE IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (DNR) TECHNICAL STANDARDS (REFERRED TO AS BMP'S) AND THE CITY OF OAK CREEK ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL CONTROL MEASURES WHICH MAY BE NECESSARY TO MEET UNFORESEEN FIELD CONDITIONS. SEE THE CITY OF OAK CREEK AND WDNR EROSION CONTROL PERMITS FOR ADDITIONAL DETAILS OR REQUIREMENTS.

ALL EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES SHALL BE INSPECTED BY THE CONTRACTOR AS REQUIRED IN THE WISCONSIN ADMINISTRATIVE CODE (SPS 360.21) AND MAINTAINED PER SPS 360.22.

INSPECTIONS AND MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE ROUTINE (ONCE PER WEEK MINIMUM) TO ENSURE PROPER FUNCTION OF EROSION CONTROLS AT ALL TIMES. SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE IN WORKING ORDER AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL CHECK THE EROSION AND SEDIMENT CONTROL PRACTICES FOR MAINTENANCE NEEDS AT ALL THE FOLLOWING INTERVALS UNTIL THE SITE IS STABILIZED:

A. AT LEAST WEEKLY.

B. WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. A RAINFALL EVENT SHALL BE CONSIDERED TO BE THE TOTAL AMOUNT OF RAINFALL RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE INSPECTED WITHIN 24 HOURS OF ALL RAIN EVENTS EXCEEDING 0.5 INCHES. IMMEDIATELY REPAIR ANY DAMAGE OBSERVED DURING THE INSPECTION.

THE CONTRACTOR SHALL MAINTAIN A MONITORING RECORD WHEN THE LAND DISTURBING CONSTRUCTION ACTIVITY INVOLVES ONE OR MORE ACRES. THE MONITORING RECORD SHALL CONTAIN AT LEAST THE FOLLOWING INFORMATION:

A. THE CONDITION OF THE EROSION AND SEDIMENT CONTROL PRACTICES AT THE INTERVALS SPECIFIED ABOVE.

B. A DESCRIPTION OF THE MAINTENANCE CONDUCTED TO REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL PRACTICES. EROSION AND SEDIMENT CONTROL INSPECTIONS AND ENFORCEMENT ACTIONS MAY BE CONDUCTED BY WDNR, THE CITY OF OAK CREEK OR THEIR AUTHORIZED AGENTS DURING AND AFTER THE CONSTRUCTION OF THIS PROJECT.

EROSION AND SEDIMENT CONTROL INSPECTIONS AND ENFORCEMENT ACTIONS MAY BE CONDUCTED BY WDNR, THE CITY OF OAK CREEK OR THEIR AUTHORIZED AGENTS DURING AND AFTER THE CONSTRUCTION OF THIS PROJECT. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED BY STATE OR LOCAL INSPECTORS AND/OR THE ENGINEER OF RECORD, SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.

ALL SEDIMENT AND EROSION CONTROL DEVICES, INCLUDING PERIMETER EROSION CONTROL MEASURES SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION SHALL BE INSTALLED PRIOR TO COMMENCING EARTH DISTURBING ACTIVITIES. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES UNTIL THE SITE HAS ESTABLISHED A VEGETATIVE COVER AND IS STABILIZED.

INSTALL SILT FENCE PER SECTION 628 OF THE "STATE SPECIFICATIONS" AND WDNR TECHNICAL STANDARD 1056 AT THE LOCATIONS SHOWN ON THE PLAN. ERECT SILT FENCE PRIOR TO STARTING A CONSTRUCTION OPERATION THAT MIGHT CAUSE SEDIMENTATION OR SILTATION AT THE SITE OF THE PROPOSED SILT FENCE. CONTRACTOR SHALL INSTALL SILT FENCING AT DOWNSLOPE SIDE OF STOCKPILES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REMOVAL OF ALL REQUIRED SILT FENCE MATERIAL.

ALL PROPOSED STORM SEWER STRUCTURES AND ADJACENT EXISTING STORM INLETS SHALL HAVE A LAYER OF GEOTEXTILE FABRIC (TYPE "FF") INSTALLED BETWEEN THE FRAME & GRATE TO PREVENT SEDIMENT OR SILT FROM ENTERING THE SYSTEM. THE INLET PROTECTION SHALL BE INSPECTED BY THE CONTRACTOR AND REPLACED EVERY 14 DAYS AND AFTER EACH RAINFALL EVENT. FABRIC TO BE REPLACED AS NEEDED TO MEET FIELD CONDITIONS.

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE (WHEN NECESSARY OR AS REQUIRED BY LOCAL INSPECTORS AND/OR ENGINEER OF RECORD).

EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.):

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

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

C. ANY WATER PUMPED FROM PITS, TRENCHES, WELLS OR PONDS SHALL BE DISCHARGED INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061 AND BMP'S PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM OR DRAINAGE DITCH. PUMPED WATER CAN BE TREATED IN FILTER BAGS, STONE FILTERS OR SIMILAR DEVICES. QUALITY OF PUMPED WATER SHALL BE CONTINUOUSLY MONITORED DURING PUMPING OPERATIONS.

ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND THE CITY OF OAK CREEK ORDINANCE.

ALL DISTURBED SLOPES EXCEEDING 5:1, SHALL BE STABILIZED WITH CLASS I, TYPE A EROSION MATTING OR APPLICATION OF A WISCONSIN DEPARTMENT OF TRANSPORTATION (WisDOT) 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 AND WDNR TECHNICAL STANDARDS 1052.

PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AT THE END OF EACH WORK DAY AND AS REQUESTED BY THE CITY OF OAK CREEK.

EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

RESTORATION SPECIFICATIONS

ALL DISTURBED AREAS SHALL BE COVERED WITH 6" OF SALVAGED (OR IMPORTED) TOPSOIL AND BE SEEDED, FERTILIZED AND STABILIZED WITH CLASS I, TYPE A EROSION MATTING. EROSION MATTING AND/OR NETTING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052.

REFERENCES

STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2017 EDITION, HEREIN REFERRED TO AS "STATE SPECIFICATIONS." THE CURRENT VERSION OF THE "STATE SPECIFICATIONS" IS AVAILABLE ON THE WisDOT WEBSITE AT http://roadwaystandards.dot.wi.gov/standards/stndspec/index.htm

"MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), 2009 EDITION WITH REVISIONS 1 AND 2 INCORPORATED.

EROSION CONTROL, EARTHWORK, SITE GRADING AND PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STATE OF WISCONSIN, STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION", CURRENT EDITION, HEREIN REFERRED TO AS THE "STATE SPECIFICATIONS".

SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN", 6TH EDITION, DECEMBER 22, 2003 WITH ADDENDA NO. 1 AND NO. 2, HEREIN REFERRED TO AS THE "STANDARD SPECIFICATIONS".

MATERIALS FOR STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATE OF WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (SPS) AND THE CITY OF OAK CREEK STANDARD CONSTRUCTION SPECIFICATIONS.

STORM SEWER CONSTRUCTION SHALL BE CONSTRUCTED PER THE CITY OF OAK CREEK STANDARD CONSTRUCTION SPECIFICATIONS.

GENERAL NOTES

CONTRACTOR SHALL CONTACT DIGGER'S HOTLINE A MINIMUM OF 3 DAYS BEFORE THE START OF CONSTRUCTION TO IDENTIFY ANY UNDERGROUND UTILITIES PRESENT AT THE SITE. THE LOCATION OF EXISTING PRIVATE UTILITIES MAY NOT BE SHOWN ON THE PLANS AND SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

ANY AND ALL PUBLIC SIDEWALKS, CURBS OR PAVEMENTS DISTURBED WITHIN THE RIGHT-OF-WAY DURING CONSTRUCTION SHALL BE SAW CUT AT THE NEAREST JOINT AND REPLACED IN KIND PER THE "CITY OF OAK CREEK SPECIFICATIONS" AND "WISDOT SPECIFICATIONS". PUBLICLY-OWNED CURB AND GUTTER REPLACEMENT SECTIONS SHALL BE TIED TO EXISTING BY INSTALLING TWO (2) NO. 4 (1/2-INCH), 18-INCH LONG TIE BARS, EVENLY SPACED, DRIVEN 9-INCHES INTO THE EXISTING CURB AND GUTTER AT THE CONNECTION POINT.

AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED, EXCESS, WASTE, STOCKPILED AND SPOIL MATERIAL IN ACCORDANCE WITH SECTION 205.3.12 OF THE "STATE SPECIFICATIONS". THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

PUBLIC UTILITY NOTES

CABLE TV AND TELEPHONE SERVICE INSTALLATION TO BE COORDINATED WITH THE ELECTRICAL SERVICE.

ELECTRICAL SERVICE TO BE COORDINATED WITH WE ENERGIES. EXACT LOCATION OF THE SERVICE ENTRANCE / METER TO BE COORDINATED WITH WE ENERGIES, THE MECHANICAL DESIGNER AND THE ARCHITECT.

CONCRETE FILLED STEEL PIPE BOLLARDS TO BE PAINTED WITH TWO COATS OF EXTERIOR PAINT. COLOR TO COMPLIMENT BUILDING (RED)

THE EXACT LOCATION OF THE SANITARY SEWER LATERAL, DOMESTIC WATER LINE, FIRE PROTECTION LEAD, NATURAL GAS SERVICE, ELECTRIC, AND PHONE LINES (AS THEY ENTER THE BUILDING) SHALL BE PER THE ARCHITECTURAL OR MECHANICAL DRAWINGS.

UTILITY CONSTRUCTION GENERAL NOTES

CONTRACTOR SHALL VERIFY ALL ELEVATIONS, LOCATIONS AND SIZES OF EXISTING SANITARY AND STORM SEWERS, WATER MAINS, GAS & ELECTRIC LINES OR OTHER UTILITIES PRIOR TO STARTING CONSTRUCTION. AS-BUILT (FIELD) DATA SHALL BE USED TO CHECK ALL PROPOSED UTILITY CROSSINGS FOR CONFLICTS.

CONTRACTOR SHALL CONTACT DIGGER'S HOTLINE A MINIMUM OF 72 HOURS BEFORE THE START OF CONSTRUCTION TO IDENTIFY ADJACENT UNDERGROUND UTILITIES. THE LOCATION OF EXISTING PRIVATE UTILITIES MAY NOT BE SHOWN ON THE PLANS AND SHOULD BE LOCATED BY THE OWNER PRIOR TO CONSTRUCTION.

ANY WATER PUMPED FROM PITS, TRENCHES, WELLS OR PONDS SHALL BE TREATED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGE OFF-SITE. PUMPING OPERATIONS SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061. PUMPED WATER CAN BE TREATED IN RETENTION BASINS, FILTER BAGS, STONE FILTERS OR BY OTHER WDNR APPROVED METHODS. QUALITY OF PUMPED WATER SHALL BE CONTINUOUSLY MONITORED DURING PUMPING OPERATIONS.

THE EXACT LOCATION OF ALL BUILDING LATERALS, ROOF DRAIN RISERS AND DOWNSPOUTS (IF APPLICABLE) SHALL BE PER THE ARCHITECTURAL OR MECHANICAL DRAWINGS.

STORM SEWER SPECIFICATIONS

STORM SEWERS WERE SIZED IN ACCORDANCE WITH SPS TABLE 382.36-4 "MAXIMUM CAPACITY OF STORM WATER HORIZONTAL CONVEYANCE PIPING FOR CONCRETE, ASTM C76 AND ASTM C14". ANY MATERIAL APPROVED BY THE CITY OF OAK CREEK AND THE WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES MAY BE USED AT THE SLOPES AND SIZES DESIGNED.

STORM SEWER PIPE AND TUBING MATERIALS SHALL CONFORM TO SPS 384.30 OF THE WISCONSIN ADMINISTRATIVE CODE. REINFORCED CONCRETE PIPE (RCP) AND POLYVINYL CHLORIDE (PVC) MATERIALS SHALL BE SELECTED FROM TABLE 384.30-6. CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE MATERIAL (IF SELECTED) SHALL MEET THE REQUIREMENTS OF AASHTO M-252 FOR 4"-10" DIAMETER SIZES AND AASHTO M294 FOR 12"-48" DIAMETER SIZES.

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

THE CORRUGATED STEEL PIPE USED IN THE SLOTTED DRAIN MEET THE REQUIREMENTS OF AASHTO M36/ASTM A 760. THE CSP SHALL BE MADE OF ALUMINIZED STEEL TYPE 2 (AASHTO M274). THE DIAMETER AND GAGE SHALL BE AS SHOWN ON THE PLANS.

FOR CONNECTIONS OF SLOTTED DRAINS THE CSP SHALL HAVE A MINIMUM OF TWO RE-ROLLED ENDS. THE SLOTTED DRAIN BAND SHALL BE MODIFIED HUGGER BANDS TO SECURE THE PIPE AND PREVENT INFILTRATION OF BACKFILL. WHEN THE SLOTTED DRAIN IS BANDED TOGETHER, THE ADJACENT GRATES SHALL HAVE A MAXIMUM 3-INCH GAP.

THE GRATES SHALL BE MANUFACTURED FROM ASTM A 1011, GRADE 36 OR ASTM A 36 STEEL. THE PLATE EXTENDERS ARE A MINIMUM 7 GAUGE AND MADE FROM ASTM A 761 OR ABOVE MATERIALS. THE SPAVER PLATES SHALL BE ON 6-INCH CENTERS AND WELDED ON BOTH SIDES TO EACH BEARING PLATE (SIDES) WITH FOUR 1 1/4-INCH LONG 3/16-INCH FILLET WELDS ON EACH SIDE OF THE BEARING PLATE. IF TENSILE STRENGTH TESTS ARE CALLED FOR, MINIMUM RESULTS FOR AN IN-PLACE PLATE PULLED PERPENDICULAR TO THE BEARING PLATE SHALL BE:

T = 12,000 POUNDS FOR 2 1/2-INCH GRATE
T = 15,000 POUNDS FOR 6-INCH GRATE

THE GRATES SHALL BE TRAPEZOIDAL WITH A 1 3/4-INCH OPENING IN THE TOP AND 30O SLANTED SPACER PLATES UNLESS OTHERWISE SHOWN ON THE PLANS. THE GRATE SHALL BE 2 1/2-INCHES HIGH OR 6-INCHES HIGH AS SHOWN ON THE PLANS. THE GRATES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123 EXCEPT WITH A 2-OUNCE GALVANIZED COATING.

FOR STANDARD HIGHWAY LOADING, THE GRATE SHALL BE FILLET WELDED A MINIMUM 1-INCH LONG TO THE CSP ON EACH SIDE OF THE GRATE OR AT EVERY CORRUGATION FOR THE LOADS WHICH EXCEED HIGHWAY VEHICLES.

TOLERANCES - FINISHED SLOTTED DRAIN GRATES - 20-FOOT LENGTHS
VERTICAL BOW IS ±3/8-INCH. HORIZONTAL BOW IS ±5/8-INCH. TWIST IS ±1/2-INCH.

ALL STORM SEWERS INSTALLED IN EXISTING OR PROPOSED PAVED AREAS SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH TABLE 37, CHAPTER 8.43.4 OF THE "STANDARD SPECIFICATIONS". BACKFILL MATERIAL SHALL EXTEND A MINIMUM OF FIVE FEET (5') OUTSIDE OF THE PAVEMENT LIMITS. TRENCHES RUNNING PARALLEL TO AND LESS THAN FIVE FEET (5') FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE COMPACTED GRANULAR BACKFILL.

A 10-GAUGE TRACER WIRE SHALL BE INSTALLED THE ENTIRE LENGTH OF ALL PRIVATE STORM SEWERS, ROOF DRAINS AND STORM BUILDING SEWER LATERALS PER SPS 382.36(7)(d)10. THE TRACER WIRE SHALL BE EXTENDED TO THE SURFACE AT THE BUILDING WALL AND ALL OTHER SYSTEM LIMITS (FOR EACH SYSTEM INSTALLED) AND ENCLOSED IN A RISER BOX WITH "STORM" ON THE COVER.

ALL STORM SEWERS INSTALLED IN EXISTING OR PROPOSED PAVED AREAS SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH TABLE 37, CHAPTER 8.43.4 OF THE "STANDARD SPECIFICATIONS". BACKFILL MATERIAL SHALL EXTEND A MINIMUM OF FIVE FEET (5') OUTSIDE OF THE PAVEMENT LIMITS. TRENCHES RUNNING PARALLEL TO AND LESS THAN FIVE FEET (5') FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE COMPACTED GRANULAR BACKFILL.

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PAVEMENT SPECIFICATIONS

DENSE AGGREGATE BASE COURSE SHALL MEET THE REQUIREMENTS OF SECTION 305 OF THE "STATE SPECIFICATIONS". THE COMPLETED BASE SHALL BE IN ACCORDANCE WITH THE "TYPICAL SECTIONS & CONSTRUCTION DETAILS" SHEET(S) OF THE PLAN SET AND SHALL BE CONSTRUCTED IN FOUR-INCH (4") LIFTS AND COMPACTED ACCORDING TO SUBSECTION 305.3.2.2 OF THE "STATE SPECIFICATIONS".

CONCRETE FOR PAVEMENT(S), SIDEWALKS, CURB & GUTTER AND DRIVEWAY APRONS SHALL BE GRADE A-FA, AIR-ENTRAINED, AS SPECIFIED IN SUBSECTION 501.3.1 OF THE "STATE SPECIFICATIONS". ALL EXTERIOR CONCRETE SHALL BE "READY-MIXED" AND RECEIVE A BROOM FINISH. ALL CONCRETE WORK SHALL BE CURED IN ACCORDANCE WITH THE REQUIREMENTS OF SUBSECTION 415.2.4 OF THE "STATE SPECIFICATIONS".

HEAVY-DUTY CONCRETE SHALL BE EIGHT INCHES (8") IN THICKNESS ON SIX INCHES (6") OF DENSE AGGREGATE BASE COURSE AND BE CONSTRUCTED IN ACCORDANCE WITH THE "TYPICAL SECTIONS & CONSTRUCTION DETAILS" SHEET(S) OF THE PLAN SET.

CONTRACTION JOINTS SHALL BE AT TEN-FOOT (10') INTERVALS FOR CURB AND GUTTER AND FIVE-FOOT (5') INTERVALS FOR FIVE-FOOT (5') WIDE SIDEWALK. FINAL JOINTING PLAN FOR CONCRETE PAVEMENT TO BE PREPARED BY THE CONTRACTOR.

EXPANSION JOINTS SHALL BE PLACED AS OUTLINED IN SUBSECTION 601.3.6 OF THE "STATE SPECIFICATIONS". FILLER MATERIAL FOR EXPANSION JOINTS SHALL BE 1/2" FIBER MATERIAL.

CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLES, VALVE BOXES, ETC.) TO MATCH THE FINISHED GRADES OF THE AREA AFFECTED BY THE CONSTRUCTION.

Nielsen Madsen + Barber
CIVIL ENGINEERS AND LAND SURVEYORS
1458 Horizon Blvd. Suite 200, Racine, WI. 53406
Tele: (262)634-5588 Website: www.nmbsc.net

LOTS 6, 7 & 8 BLOCK 5
SOUTHBRANCH INDUSTRIAL PARK
PROJECT SPECIFICATIONS
FOR
TNT EXPRESS INC
CITY OF OAK CREEK, COUNTY OF MILWAUKEE, WISCONSIN

NO.	REVISION	BY	DATE

PROJ. MGR:	MRM
DRAFTED:	JWR
DATE:	6-26-2023
CHECKED:	ALJ
DATE:	6-27-2023

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