

ADDENDUM NO. 2

**LEWIS STREET AND 2ND AVENUE PARKING LOT IMPROVEMENTS
CITY OF SHAKOPEE
STORM 24-001, PA-24-03
PA-24-05**

OWNER: City of Shakopee, Engineering Department
485 Gorman Street
Shakopee, MN 55379

ENGINEER: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100
St. Paul, MN 55114

BIDS OPENED AT: **3:00 PM CDT, Wednesday, April 17th, 2024**

ISSUED: Tuesday, April 16, 2024

The additions, revisions, corrections, and clarifications herein shall be made to the Bidding Documents, Conditions of the Contract, Contract Drawings, and Technical Specifications for the project and shall be included in the Scope of Work and Schedule of Unit Prices to be submitted. References made herein to Specifications and Contract Drawings shall be used as a general guide only. Bidders shall determine, for themselves, the full scope of work affected by addendum items.

MODIFICATIONS TO THE ADVERTISEMENT FOR BIDS:

Remove sentence one of paragraph one and replace with the following:

NOTICE IS HEREBY GIVEN that sealed bids will be received by the City Council for the City of Shakopee, Minn., until 3:00 P.M. on April 17, 2024 at which time bids will be opened, for construction of the following: LEWIS STREET AND 2ND AVENUE PARKING LOT IMPROVEMENTS STORM 24-001, PA-24-03, PA-24-05.

MODIFICATIONS TO THE BID PROPOSAL:

Remove sentence one of paragraph one and replace with the following:

BIDS TO BE OPENED AT 3:00 P.M., LOCAL TIME, APRIL 17, 2024

MODIFICATIONS TO THE CONTRACT DRAWINGS:

The following modifications shall be made to the Contract Drawings:

SHEET 2

Remove "P" from Column 1 of the following rows of table Statement of Estimated Quantities:

2106.507 – EXCAVATION COMMON

2211.507 – AGGREGATE BASE (CV) CLASS 5

Remove estimated quantity from stormwater system for 2211.507 – AGGREGATE BASE (CV) CLASS 5 and replace with 0. Revise total quantity to 152 CU YD (CV).

SHEET 3

Remove Note 8.

SHEET 18

Remove General Construction Note 3.

Remove Construction Note 2 and replace with the following:

UNDERGROUND INFILTRATION BASIN FILL MATERIAL AROUND UNDERGROUND INFILTRATION BASIN TO BE COARSE FILTER AGGREGATE – SEE DRAINAGE DETAILS.

SHEET 20

Append the following sentence to the end of Note 10:

ALL WORK AND MATERIALS ASSOCIATED WITH THE LEVELING PAD AND FILL ARE INCLUDED IN THE BID ITEM “PREFABRICATED MODULAR BLOCK WALL”.

SHEET 28

Append the following to column 2 of note 5 in Table 2:

INCIDENTAL TO UNDERGROUND INFILTRATION SYSTEM

SHEET 31

Remove detail label for Backfill section and replace with the following:

COARSE FILTER AGGREGATE label.

MODIFICATIONS TO DIVISION S:

The following modifications shall be made to the Division S Special Provisions to the MnDOT Standard Specifications:

(2503) PIPE SEWERS

Append the following paragraph after the first paragraph of 2503.3 Repair Pipe:

Images of pipe damage included below from March 2024 pipe televising supplied by the City of Shakopee.



(2506) MANHOLES AND CATCH BASINS

Insert the following sentence after sentence 1 of paragraph 3 of 2506.2.O:

Manhole structure STR-303 shall be a 120” diameter reinforced concrete precast structure.

Append the following paragraph between the first and second paragraph of 2506.2.Q:

Manhole baffle and skimmer may be substituted for an approved equal. Approved equal shall provide performance removal efficiency of 45% or greater based on MnDOT Sand Particle Size Distribution (PSD) based on SHSAM software. The approved equal shall provide removal of floatable debris and have a minimum sump depth of four feet.

SHSAM model inputs used to calculate removal efficiency include the following:

- Precipitation: Golden Valley, MN (1995-2007)
- Particle Distribution: MnDOT Sand PSD
- Water Temperature: St. Paul, MN (1991-2007)
- Influent Concentration: 73 mg/L
- Watershed Data:
 - Contributing Area = 29.6 ac
 - Percent Impervious = 70
 - Hydraulic Length = 2,500 feet
 - Watershed Average Slope = 1.6%
 - Pervious CN = 90

Append the following paragraphs after the first paragraph of 2506.2.R:

Geotextile fabric shall be placed along sides and above underground infiltration system prior to backfill being placed. Geotextile fabric shall be Contech C-40 or C-45 or approved equal. No geotextile fabric shall be placed below the invert of the underground infiltration system. Geotextile fabric material, installation, and labor shall be incidental to the construction of the underground infiltration system.

Coarse filter aggregate shall be placed in accordance with the underground infiltration system specifications. The coarse filter aggregate shall have a median size ranging from ¾” to 1-1/2” crushed river rock. Coarse filter aggregate shall be washed and free draining prior to installation. Coarse filter aggregate shall be of igneous rock. No limestone shall be used.

Remove the last sentence of paragraph seven of 2506.5 and replace with the following:

The underground infiltration system bid item includes all pipe, fittings, risers, stubs, fabrication, delivery to the jobsite, coarse filter aggregate, geotextile, and installation of the system.

END OF ADDENDUM NO. 2

SPECIFIC NOTES

(P) DENOTES PLAN QUANTITY

- ITEM TO BE USED AS DIRECTED BY THE FIELD ENGINEER
- SEE STAIR CASE DETAILS ON SHEET 21
- SEE RETAINING WALL DETAILS ON SHEET 20
- SEE RAIN GUARDIAN TURRET DETAILS ON SHEET 26
- SEE UNDERGROUND SYSTEM DETAILS ON SHEET 27-31
- ITEM INCLUDES SAFL BAFFLE AND SKIMMER OR APPROVED EQUIVALENT
- ITEM INCLUDES AGGREGATE BASE REMOVAL BENEATH RECLAIM AREAS AT UNDERGROUND INFILTRATION

STATEMENT OF ESTIMATED QUANTITIES						CITY OF SHAKOPEE			
						LEWIS STREET & 2ND AVE PARKING LOT IMPROVEMENTS			
						RETAINING WALL	PARKING LOT	STORMWATER SYSTEM	
NOTE	SHEET NO.	TAB	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
			2021.501	MOBILIZATION	LUMP SUM	1	0.14	0.21	0.65
			2101.502	CLEARING	EACH	12	10	2	
			2101.502	GRUBBING	EACH	12	10	2	
			2104.502	REMOVE LIGHTING UNIT	EACH	8	6	2	
			2104.502	REMOVE CONCRETE STEPS	EACH	2	2		
			2104.502	REMOVE DRAINAGE STRUCTURE	EACH	2			2
			2104.502	SALVAGE SIGN TYPE C	EACH	6		6	
			2104.502	SALVAGE BENCH	EACH	4	4		
			2104.503	SAWING CONCRETE PAVEMENT	LIN FT	60		50	
			2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	100		100	
			2104.503	REMOVE SEWER PIPE (STORM)	LIN FT	65			55
			2104.503	REMOVE CURB & GUTTER	LIN FT	790		790	
			2104.503	REMOVE RETAINING WALL	LIN FT	430	430		
			2104.503	REMOVE CONDUIT	LIN FT	240		240	
			2104.503	REMOVE FENCE	LIN FT	80	80		
			2104.504	REMOVE CONCRETE WALK	SQ YD	375	315	60	
			2104.618	REMOVE BRICK PAVERS	SQ FT	600	310	290	
			2106.507	EXCAVATION - COMMON	CU YD	4087	22	375	3690
			2106.507	EXCAVATION - EMBANKMENT	CU YD	10		10	
			2106.507	EXCAVATION - SUBGRADE	CU YD	10		10	
			2112.604	SUBGRADE PREPARATION	SQ YD	3410		3410	
			2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	15			15
			2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	152	22	130	
			2211.607	3" MINUS AGGREGATE	CU YD	10		10	
			2215.504	FULL DEPTH RECLAMATION	SQ YD	3410		3410	
			2360.509	TYPE SP 9.5 WEARING COURSE MIX (2.C)	TON	392	2	390	
			2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2.C)	TON	392	2	390	
			2411.607	CONCRETE STAIRCASE #1	LS	1	1		
			2411.607	CONCRETE STAIRCASE #2	LS	1	1		
			2411.604	MODULAR BLOCK RETAINING WALL	SQ YD	75	75		
			2502.503	6" PERFORATED PVC PIPE DRAIN	LIN FT	320	320		
			2502.601	IRRIGATION SYSTEM	LUMP SUM	1			1
			2503.503	12" RC PIPE SEWER CLASS V	LIN FT	10			10
			2503.503	15" RC PIPE SEWER CLASS V	LIN FT	22			22
			2503.503	24" RC PIPE SEWER CLASS III	LIN FT	26			26
			2503.602	CONNECT TO EXISTING STORM SEWER	EACH	2			2
			2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	1			1
			2503.602	REPAIR PIPE	EACH	1			1
			2503.603	6" PVC PIPE SEWER	LIN FT	29			29
			2506.502	CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	2			2
			2506.502	CONST DRAINAGE STRUCTURE DESIGN SPEC 2	EACH	1			1
			2506.502	CONST DRAINAGE STRUCTURE DESIGN SPEC 3	EACH	1			1
			2506.502	CASTING ASSEMBLY	EACH	5			5
			2506.503	CONST DRAINAGE STRUCTURE DES 46-4020	LIN FT	11			11
			2506.503	CONST DRAINAGE STRUCTURE DES 96-4020	LIN FT	8			8
			2506.601	UNDERGROUND INFILTRATION SYSTEM	LUMP SUM	1			1
			2511.507	RANDOM RIPRAP CLASS II	CU YD	65			65
			2511.602	DECORATIVE BOULDER FLOW SPREADER	EACH	12			12
			2521.518	4" CONCRETE WALK	SQ FT	5574	5574		
			2521.518	6" CONCRETE WALK	SQ FT	638	638		
			2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	790		790	
			2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	90		90	
			2531.618	TRUNCATED DOMES	SQ FT	48		48	
			2540.602	INSTALL BENCH	EACH	4	4		
			2540.602	SALVAGE AND INSTALL PLANTER POTS	EACH	6	6		
			2545.503	3" SCHEDULE 40 ID NMC	LIN FT	250		250	
			2550.603	REMOVE CONDUIT	LIN FT	240		240	
			2557.603	DECORATIVE METAL FENCE	LIN FT	220		220	
			2563.601	TRAFFIC CONTROL	LUMP SUM	1	0.34	0.33	0.33
			2571.502	DECIDUOUS TREES (2.5" CAL.)	EACH	9			9
			2571.502	ORNAMENTAL TREE (1.5" CAL.)	EACH	1			1
			2571.502	DECIDUOUS SHRUB (#5 CTNR.)	EACH	46			46
			2571.502	PERENNIAL (#1 CTNR.)	EACH	233			233
			2571.604	FILTER FABRIC	SQ FT	3370			3370
			2572.502	TREE PROTECTION	EACH	8		8	
			2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	2		2	
			2573.501	EROSION CONTROL SUPERVISOR	LUMP SUM	1			1
			2573.502	STORM DRAIN INLET PROTECTION	EACH	8			8
			2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	1600			1600
			2575.504	TURF-SOD	SQ FT	3590			3590
			2582.601	STRIPING	LUMP SUM	1		1	

No.	Date	Revisions
2	4/16/2024	"P" Quant.

App.	DRAWING NAME
MAK	-SEQ.dwg
	DESIGNED BY: MAK
	DRAWN BY: RCH
	CHECKED BY: MAK
	DATE: 03/19/2024
	PROJECT NO. 16100202

Kimley»Horn
 11995 SINGLETREE LANE SUITE 225, EDEN PRAIRIE, MN 55344
 PHONE: 612-315-1272
 WWW.KIMLEY-HORN.COM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew L. Cox
 MATHEW L COX
 DATE: 03/19/2024 MN LIC. NO. 60385

SHAKOPEE

CITY OF SHAKOPEE
 LEWIS STREET AND 2ND AVENUE
 PARKING LOT IMPROVEMENTS
 STATEMENT OF ESTIMATED QUANTITIES

CITY PROJECT	STORM 24-001
CITY PROJECT	PA-24-03
CITY PROJECT	PA-24-05

SHEET NO. 2

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GENERAL CONSTRUCTION NOTES

1. THE GRADING GRADE IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE (CV) CLASS 5 OR TOPSOIL. THE FINISHED GRADE IS DEFINED AS THE TOP OF PAVEMENT OR TOPSOIL.
2. UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO THE START OF CONSTRUCTION AND COORDINATE THE WORK SCHEDULE WITH UTILITY COMPANY CREWS BY CONTACTING EACH UTILITY COMPANY PERFORMING RELOCATION WORK. LOCATION OF PRIVATE UTILITIES SHALL BE INCIDENTAL.
3. NO DISPOSAL SITE IS PROVIDED. ANY MATERIAL NOT UTILIZED ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR DISPOSAL. THE CONTRACTOR SHALL DISPOSE OF MATERIAL UNSUITABLE FOR USE DURING CONSTRUCTION.
4. NO EXTRA PAYMENT WILL BE MADE FOR TEMPORARY STOCKPILING OF EXCAVATION, EMBANKMENT, AND/OR BORROW MATERIAL.
5. REMOVALS: BITUMINOUS SURFACES, CONCRETE AND OTHER OBJECTS OR MATERIALS TO BE REMOVED UNDER THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND EITHER RECYCLED OR DISPOSED OF OUTSIDE OF THE PROJECT SITE IN ACCORDANCE WITH MnDOT SPEC. 2104. STRIP AND REUSE ALL EXISTING TOPSOIL AS SLOPE DRESSING. TOPSOIL AND EXISTING SLOPE DRESSING SHALL NOT BE USED AS FILL MATERIAL BENEATH PAVEMENTS OR STRUCTURES PER MnDOT SPEC. 2105.
6. SLOPE DRESSING IS DEFINED AS THE EXISTING TOPSOIL, TOPSOIL BORROW, OR OTHER SOIL PLACED PRIOR TO CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
7. COMPACTION OF AGGREGATE ITEMS SHALL BE BY THE "QUALITY COMPACTION METHOD".
8. ~~PLACE A MINIMUM OF 6" BOULEVARD TOPSOIL BORROW ON ALL AREAS DISTURBED BY CONSTRUCTION AND SCHEDULED FOR PERMANENT TURF ESTABLISHMENT UNLESS OTHERWISE NOTED.~~
9. ALL STAGING AND STORAGE OF CONSTRUCTION MATERIALS SHALL BE MAINTAINED AND CONFINED TO THE CONSTRUCTION LIMITS.
10. ALL CONSTRUCTION TRAFFIC, INCLUDING BUT NOT LIMITED TO, CONSTRUCTION EQUIPMENT, DELIVERY TRUCKS, OR ANY OTHER MACHINERY SHALL ENTER THE PROJECT SITE FROM THE WEST ENTRANCE TO THE PARKING LOT OFF HOLMES STREET SOUTH
11. THE CONTRACTOR IS ADVISED THAT ADDITIONAL SECURITY FENCING MAY BE REQUIRED FOR BRIEF PERIODS. SECURING THE PROJECT SITE FROM THE PUBLIC SHALL BE INCIDENTAL.
12. CITY FIBER, IRRIGATION AND LIGHTING ELECTRICAL LINES RUN WITHIN THE PARKING LOT. CONTRACTOR SHALL WORK WITH CITY FORCES TO LOCATE THESE UTILITIES AND AVOID IMPACTS TO THE EXTENT POSSIBLE.

GENERAL TRAFFIC CONTROL NOTES

1. ADVANCED NOTIFICATION SIGNAGE WITH A SCHEDULED START DATE IS REQUIRED TO BE PLACED 7 CALENDAR DAYS PRIOR TO THE START OF PAVEMENT REMOVAL OR ANY SUBSTANTIAL WORK. ONCE THE SIGNAGE IS IN PLACE, THE SCHEDULE MUST BE MAINTAINED. INTERIM DETOURS ON ROADWAYS OUTSIDE OF PROJECT LIMITS WILL ALSO REQUIRE 7-DAY ADVANCE NOTICE SIGNS.
2. THE MAIN CONSTRUCTION ENTRANCE TO THE SITE SHALL BE LOCATED ALONG HOLMES STREET SOUTH. DURING PAVEMENT RECLAMATION AT ENTRANCE ALONG LEWIS STREET, THE HOLMES STREET ENTRANCE SHALL BE OPEN. IF CONTRACTOR DETERMINES BOTH ENTRANCES BE CLOSED FOR A PERIOD OF TIME, THE CONTRACTOR MUST COORDINATE WITH ENGINEER AND PROPERTY OWNERS. A SECONDARY CONSTRUCTION ENTRANCE AT LEWIS STREET MAY BE USED DURING CONSTRUCTION TO ALLOW RESIDENT ACCESS TO 129/131 3RD STREET RESIDENCE.
3. MAINTAIN GARBAGE AND RECYCLING SERVICE AT ALL TIMES. PROVIDE ACCESS FOR GARBAGE AND DELIVERY VEHICLES. WHEN INFEASIBLE TO MAINTAIN SUCH ACCESS, COLLECT CONTAINERS, RELOCATE THEM TO A LOCATION WHERE SUITABLE ACCESS CAN BE PROVIDED, AND RETURN CONTAINERS IN GOOD WORKING CONDITION TO THE SAME PROPERTY FROM WHICH THEY WERE TAKEN. COSTS FOR PROVIDING ACCESS OR HAULING CONTAINERS TO AN ACCESSIBLE LOCATION ARE INCIDENTAL.
4. THE ITEM "TRAFFIC CONTROL" BID AS "LUMP SUM" INCLUDES ALL COSTS FOR PROVIDING TEMPORARY CONTROLS SPECIFIED IN THE PLAN AND OTHER TRAFFIC CONTROL REQUIRED PER THE MN/MUTCDC DUE TO THE CONTRACTORS OPERATIONS FOR COMPLETION OF THE PROJECT INCLUDING BUT NOT LIMITED TO, WORKING UNDER TRAFFIC, TEMPORARY ROAD CLOSURES IN FULL OR TO THRU TRAFFIC, TEMPORARY LANE CLOSURES, ADJUSTMENTS TO THE TRAFFIC CONTROL PLAN FOR LARGE AND SMALL SCALE STAGING OPERATIONS, AND NECESSARY DETOURS FOR MOTORISTS, BICYCLISTS, AND/OR PEDESTRIANS. THE AMOUNT BID SHALL ALSO INCLUDE SUFFICIENT TRAFFIC CONTROL FOR WARNING OF POTENTIAL HAZARDS DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO FLASHING BARRICADES AROUND EQUIPMENT AND OBSTRUCTIONS.
5. PREVENT TRACKING OF BITUMINOUS MATERIAL ONTO THE ADJACENT STREETS. IF MATERIAL IS TRACKED ONTO ADJACENT STREETS, RESTORE THE PAVEMENT AND STRIPING TO THE SATISFACTION OF THE AGENCY HAVING JURISDICTION OVER THE ROADWAY AND CITY.
6. CONFINE ANY EQUIPMENT OR MATERIALS LEFT IN THE PARKING LOT OVERNIGHT TO THE PROJECT LIMITS. DO NOT RESTRICT THE REQUIRED PARKING LANES. PROTECT THE EQUIPMENT WITH TYPE 1 BARRICADES ON ALL SIDES VISIBLE TO TRAFFIC. DO NOT STORE MATERIAL IN REQUIRED PARKING SPACES.
7. MAINTAIN ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES.

UTILITY CONSTRUCTION NOTES

1. WATER AND SANITARY SERVICE LOCATIONS SHOWN ARE APPROXIMATE AND ALL SERVICES MAY NOT BE SHOWN.
2. ALL CONNECTIONS TO EXISTING UTILITIES (STM) SHALL BE FIELD VERIFIED FOR LOCATION AND ELEVATION PRIOR TO SCHEDULING THE WORK (INCIDENTAL)
3. TRENCH BOXES OR OTHER TRENCH STABILIZATION METHODS MAY BE REQUIRED DURING CONSTRUCTION TO STAY WITHIN CONSTRUCTION LIMITS AND MINIMIZE REMOVAL LIMITS (INCIDENTAL).
4. REFER TO PROJECT SPECIFICATIONS FOR STRUCTURE CASTING FRAME & COVER REQUIREMENTS.
5. COMPLETE UTILITY CONSTRUCTION PRIOR TO RECLAMATION OR PAVEMENT REMOVAL
6. REMOVAL OF EXISTING STORM SEWER IS INCIDENTAL TO PROPOSED STRUCTURE INSTALLATION

2

REMOVAL NOTES:

1. REMOVE AND REPLACE CONCRETE CURB AND GUTTER AS DETERMINED BY ENGINEER IN FIELD (SPOT REPLACEMENT).
2. PRIOR TO REMOVALS, INSTALL EROSION CONTROL DEVICES.
3. REMOVALS SHALL BE LIMITED TO AREAS WITHIN THE DEFINED PROJECT LIMITS. IF CONTRACTORS OPERATIONS CAUSE DAMAGE OR REQUIRE RESTORATION OUTSIDE OF DEFINED PROJECT LIMITS, REPAIR OR RESTORE AT NO ADDITIONAL COST TO THE CITY.
4. FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF MATERIALS REMOVED FROM THIS SITE.
5. PAVEMENT REMOVAL LIMITS SHOWN ON THE PLAN ARE APPROXIMATE. REMOVAL LIMITS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER. VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO SAWCUTTING.
6. PROTECT ALL ITEMS DESIGNATED FOR SALVAGE AND PROVIDE APPROPRIATE STORAGE UNTIL RE-INSTALLATION. ANY ITEMS DESIGNATED TO BE SALVAGED WHICH ARE DAMAGED SHALL BE REPLACED WITH NEW AT NO ADDITIONAL COST TO THE OWNER. REPAIR OF DAMAGED ITEMS SHALL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER.
7. ANY LANDSCAPING MATERIALS WITHIN R.O.W. TO BE REMOVED SHALL BE DESIGNATED IN ADVANCE BY THE ENGINEER AND SHALL BE CONSIDERED INCIDENTAL.
8. DURING CONSTRUCTION, PROTECT ALL ITEMS NOT IDENTIFIED FOR REMOVAL (INCIDENTAL).
9. ALL SALVAGED SIGNS SHALL BE RETURNED TO PUBLIC WORKS UNLESS OTHERWISE STATED.
10. ENGINEER TO IDENTIFY AND MARK CONCRETE AND BITUMINOUS DRIVEWAY REMOVAL LOCATIONS.
11. ENGINEER TO IDENTIFY AND MARK CONCRETE AND BITUMINOUS WALK REMOVAL LOCATIONS.

UTILITY CONTACTS	
City of Shakopee Public Works Department 400 Gorman St. Shakopee, MN 55077 952-233-9550 (phone)	<u>Center Point Energy</u> Austin Sower, Justin Klingl 612-321-5421, 612-321-5207 (phone) austin.sowers@centerpointenergy.com, justin.kingl@centerpointenergy.com
<u>City of Shakopee Employee Contacts</u> Alex Jordan, City Engineer 952-233-9361 Marking Concerns 952-233-9556 (phone) Ajordan@ShakopeeMN.gov	<u>JAGUAR COMMUNICATIONS</u> Michael Broadwater 507-219-8081 (phone) mbroadwater@jagcom.net
<u>Gopher State One Emergency Location</u> 651-454-0002 (phone)	<u>METRO FIBERNET</u> Stephen Hotvedt 920-924-3690 x2800 (phone) shotvedt@mi-tech.us, daniel.holmquist@metronet.com
<u>Comcast</u> Mark Macchia 800-778-9140 (phone) mark_macchia2@comcast.com	<u>MCI (VERIZON)</u> Doug Heider, Tamora Hartman 651-735-9590, 612-360-3288 (phone) dheider@mi-tech.us, tamora.hartman@verizonwireless.com
<u>CenturyLink</u> Randall Olson 800-778-9140 (phone) randall.olson@umen.com	<u>ZAYO BANDWIDTH</u> Steve Senger 952-230-9660 (phone) Steve.Senger@zayo.com

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No.	Date	Revisions	App.	DRAWING NAME
2	4/16/2024	NOTE REMOVAL	MAK	-NOTES_GEN.dwg
				DESIGNED BY: MAK
				DRAWN BY: RCH
				CHECKED BY: MAK
				DATE: 03/19/2024
				PROJECT NO. 16100202

Kimley»Horn

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew L. Cox
MATHEW L COX
DATE: 03/19/2024 MN LIC. NO. 60385

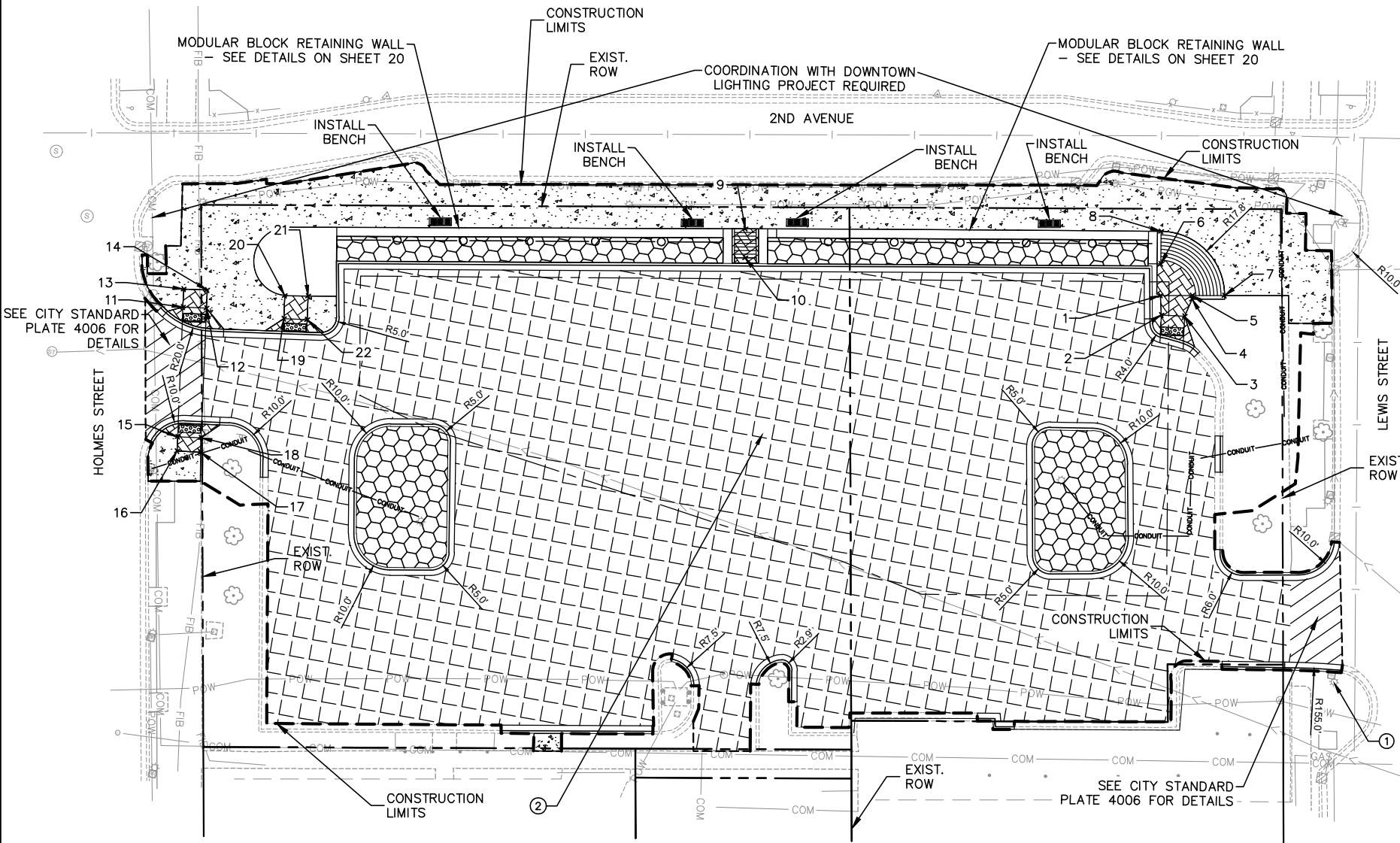
SHAKOPEE

CITY OF SHAKOPEE
LEWIS STREET AND 2ND AVENUE
PARKING LOT IMPROVEMENTS

GENERAL NOTES

CITY PROJECT	STORM 24-001	SHEET NO.
CITY PROJECT	PA-24-03	3
CITY PROJECT	PA-24-05	
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GRADING POINTS TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	753.26	218771.07	445841.02	LZ
2	753.24	218765.76	445842.21	LZ
3	753.32	218766.58	445848.66	LZ
4	753.34	218771.61	445849.81	LZ
5	753.35	218772.59	445849.63	TOS/LZ
6	753.11	218779.70	445839.57	TOS
7	749.37	218774.16	445858.49	BOS
8	749.09	218788.57	445838.09	BOS
9	749.75	218769.06	445724.58	BOS
10	753.76	218761.16	445725.94	TOS
11	753.15	218720.33	445574.95	LZ
12	753.22	218721.21	445581.43	LZ
13	753.17	218725.29	445574.28	LZ
14	753.24	218726.17	445580.75	LZ
15	753.56	218684.75	445579.82	LZ
16	754.15	218680.78	445580.36	LZ
17	754.24	218681.66	445586.80	LZ
18	753.64	218685.62	445586.26	LZ
19	753.41	218722.08	445603.03	LZ
20	753.51	218728.42	445602.16	LZ
21	753.47	218729.44	445608.58	LZ
22	753.37	218722.96	445609.47	LZ

LEGEND

- BITUMINOUS PAVEMENT - FULL DEPTH RECLAMATION (INSET A)
- 8" CONCRETE DRIVEWAY PAVEMENT
- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 12" OF 3" TO 6" ANGULAR FIELDSTONE/RIVER COBBLE CLASS 2 RIPRAP
- LIMITS OF CONSTRUCTION
- SAWCUT PAVEMENT
- B618 CURB AND GUTTER
- INSTALL WOOD RAIL FENCE
- 3" SCHEDULE 40 IC NMC FOR ELECTRICAL WIRE (PROVIDE PULL CORD FOR FUTURE LIGHTING SYSTEM)
- RIGHT OF WAY
- UNDERGROUND STORMWATER SYSTEM LIMITS OF DISTURBANCE

GENERAL CONSTRUCTION NOTES:

1. SUBGRADE REPAIR AREAS AND DEPTHS SHALL BE DETERMINED BY THE FIELD ENGINEER. SUBGRADE REPAIR INCLUDES EXCAVATION-SUBGRADE AND STABILIZING AGGREGATE, 3" MINUS, IF USED.
2. SPOT CURB REPLACEMENT ALONG EXISTING SIDEWALK MAY BE NEEDED AS DIRECTED BY THE FIELD ENGINEER. CURB AND GUTTER ALONG EXISTING SIDEWALK SHALL BE PAID FOR THROUGH CONCRETE CURB AND GUTTER DESIGN B618 "HAND POUR". CONTRACTOR SHALL REMOVE AND CONSTRUCT 6" CONCRETE WALK PANELS ADJACENT TO SPOT CURB REPLACEMENT.
3. EXCAVATION NEEDED FOR UNDERGROUND BMP TO BE REPLACED WITH AGGREGATE BASE CLASS 5. SEE DRAINAGE DETAILS SHEET 28.

CONSTRUCTION NOTES:

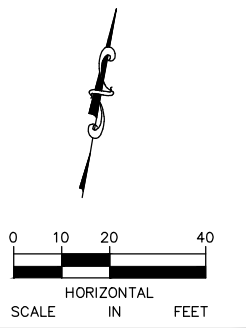
- ① PROTECT LIGHT POLE (INCIDENTAL)
- ② ~~AGGREGATE BASE CLASS 5 INSTALLED ABOVE UNDERGROUND INFILTRATION BASIN - PAID FOR AS 2500.00~~ UNDERGROUND INFILTRATION BASIN FILL MATERIAL AROUND UNDERGROUND INFILTRATION BASIN TO BE COARSE FILTER AGGREGATE - SEE DRAINAGE DETAILS

GRADING NOTES:

1. ALL ELEVATIONS WITH (*) SHALL BE FIELD VERIFIED. IF ELEVATIONS VARY SIGNIFICANTLY FROM EXISTING, NOTIFY THE ENGINEER FOR FURTHER INSTRUCTIONS.
2. GRADE SHOWN IN PAVED AREAS REPRESENT FINISH ELEVATION.
3. STRUCTURE LOCATIONS ARE TO CENTER OF CASTING FOR MH AND BACK OF CURB (TOP/BACK) FOR CB AND MHCB
4. CURB AND GUTTER THAT ABUTS EXISTING CONCRETE WALK SHALL USE ELEVATION OF CONCRETE WALK AS TOP OF CURB ELEVATION. CONTRACTOR TO PROTECT EXISTING WALK DURING CONSTRUCTION (INCIDENTAL).
5. PROTECT ALL LIGHT POLES AND FOUNDATIONS DURING CONSTRUCTION.

SPOT ELEVATIONS ABBREVIATIONS

- LZ = ADA LANDING ZONE
- TOS = TOP OF STAIR
- BOS = BOTTOM OF STAIR
- (*) = INPLACE TO BE VERIFIED



No.	Date	Revisions	App.
2	4/16/2024	NOTE REMOVALS	MAK

DRAWING NAME -CONST-PLAN.dwg	
DESIGNED BY:	MAK
DRAWN BY:	RCH
CHECKED BY:	MAK
DATE:	03/19/2024
PROJECT NO.	16100202

Kimley»Horn

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael A. Kirsch
 MICHAEL A. KIRSCH
 DATE: 03/19/2024 MN LIC. NO. 59057

CITY OF SHAKOPEE
 LEWIS STREET AND 2ND AVENUE
 PARKING LOT IMPROVMENTS

SHAKOPEE
 CONSTRUCTION AND GRADING PLAN

CITY PROJECT	STORM 24-001	SHEET NO.	18
CITY PROJECT	PA-24-03		
CITY PROJECT	PA-24-05		

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GENERAL NOTES:

UTILITIES:
EXISTING AND PROPOSED UTILITIES ARE SHOWN IN THE REMOVAL PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING FACILITIES AND SHALL EXERCISE CARE IN ADJACENT CONSTRUCTION.

EXCAVATION AND BACKFILL LIMITS:
EXCAVATION AND BACKFILL PER THE PLANS AND SPECIFICATIONS FOR RETAINING WALL CONSTRUCTION IS INCIDENTAL. ACTUAL EXCAVATION SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS: EXCAVATIONS BEYOND THE SLOPES SHOWN ARE AT THE CONTRACTOR'S EXPENSE.

EXCAVATION AND EARTHWORK:
ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO MnDOT 2451.

CONSTRUCTION:
CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPEC. 2411, EXCEPT AS NOTED.

COMPACTION REQUIREMENTS:
COMPACT REINFORCED WALL FILL IN ACCORDANCE WITH SPEC. 2106.3.F.1 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

COMPACT GRANULAR BEDDING IN ACCORDANCE WITH SPEC. 2106.3.F.1 UNLESS RECOMMENDED OTHERWISE BY THE GEOTECHNICAL ENGINEER.

NOTES TO THE CONTRACTOR:

ARCHITECTURAL SURFACE FINISH SHALL BE APPLIED TO EXPOSED SURFACE OF PREFABRICATED MODULAR BLOCK RETAINING WALL, INCLUDING 2'-0" BELOW FINISHED GRADE ON FRONT FACE, TOP AND SIDES OF CAP BLOCK AND TO BOTTOM OF TEXTURED BLOCK ON BACKFACE OF WALL. ALL WORK AND MATERIALS ASSOCIATED WITH CONSTRUCTING THE ARCHITECTURAL SURFACE FINISH ARE INCLUDED IN THE BID ITEM "PREFABRICATED MODULAR BLOCK WALL".

PROVIDE DETAILED DRAWINGS FOR CONSTRUCTION CONTAINING:

- ELEVATION VIEW WITH REINFORCEMENT PLACEMENT REQUIREMENTS, WALL FACING LAYOUT, AND GEOMETRIC INFORMATION. TOP WALL BLOCK MAY EXTEND UP TO 2" MIN. ABOVE FINISHED GRADE AT BACK FACE OF WALL.
- PLAN VIEW WITH BOTTOM AND TOP OF WALL ALIGNMENT, LEVELING PAD THICKNESS AND ALIGNMENT, AND PLAN LIMITS OF WALL ALIGNMENT.
- CROSS SECTIONS DETAILING BATTER, REINFORCEMENT, VERTICAL SPACING, REINFORCEMENT LENGTHS, SUBSURFACE DRAINAGE, SURFACE DRAINAGE, AND WATER RUNOFF COLLECTION ABOVE WALL.
- NOTE BLOCK, FILL PLACEMENT METHODS AND REQUIREMENTS.
- DETAIL ALL WALL FILL PENETRATIONS AND WALL FACE PENETRATIONS. DETAIL WALL FACING UNIT PLACEMENT AROUND PENETRATIONS.
- DETAILS THAT ARE SPECIFIC TO VENDOR PRODUCTS AND THEIR INTERACTION WITH OTHER PROJECT COMPONENTS.

- DETAILS OF CAP BLOCKS AND INSTALLATION INSTRUCTIONS FOR THE CAPS. CAP BLOCKS TO HAVE ARCHITECTURAL TEXTURE ON TOP, SIDES, AND END FACES.
- DETAILS OF THE RAILING BASE PLATE CONNECTION TO THE CAP BLOCK, INCLUDING DETAILS FOR THE TYPE, SIZE, AND MANUFACTURER OF THE ADHESIVE ANCHOR.
- CERTIFICATION BY PROFESSIONAL ENGINEER THAT THE CONSTRUCTION LAYOUT MEETS THE REQUIREMENTS OF PLANS AND SPECIFICATIONS.
- PREFABRICATED MODULAR BLOCK RETAINING WALL TO HAVE THE FOLLOWING ARCHITECTURAL TEXTURE AND FINISH:

ARCHITECTURAL SURFACE FINISH (MULTI-COLOR) SHALL BE A MULTI-COLORED APPLICATION USING APPROVED STAINS. SIMULATED STONE FORMED CONCRETE SURFACES SHALL BE STAINED IN THE FULL COLOR RANGE AND SHALL CLOSELY MATCH THE NATURAL STONE APPEARANCE OF THE BRIDGE 70007 (CR 69 OVER TH 169 IN SHAKOPEE) ABUTMENTS AND PIERS. ARCHITECTURAL SURFACE FINISH SHALL ALSO INCLUDE AN ANTI-GRAFFITI COATING APPLIED TO THE STAINED SURFACE.

SURFACE COLOR
THE SURFACE COLORING FOR THE ARCHITECTURAL SURFACE FINISH DESCRIBED ABOVE SHALL BE PERFORMED USING APPROVED STAINS OR PAINT SYSTEMS APPLIED IN A MANNER CONSISTENT WITH THE AESTHETIC DESIGN REQUIREMENTS OF THE PROJECT. THE SURFACE COLORING MUST MATCH THE COLOR FOUND ON THE BRIDGE 70007 (CR 69 OVER TH 169 IN SHAKOPEE) ABUTMENTS AND PIERS.

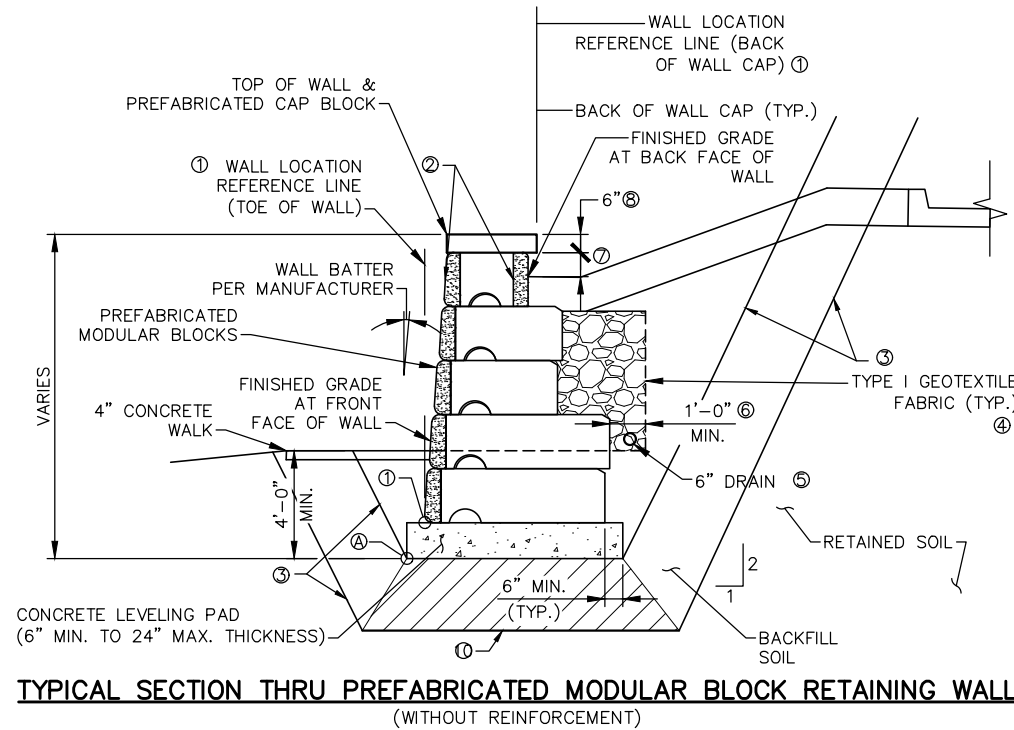
FOR ARCHITECTURAL SURFACE FINISH (MULTI-COLOR), THE COLOR SHALL BE PROVIDED BY A MULTI-COLORED STAIN APPLICATION EMULATING THE FULL COLOR RANGE OF THE ADJACENT FINISHED WALLS REFERENCED ABOVE, INCLUDING SUBTLE COLOR VARIATIONS, MINERAL OXIDATION AND STAINING. THE DESIRED FINISH COLOR EFFECT SHALL BE ACHIEVED THROUGH THE APPLICATION OF A BASE COAT AND THEN EITHER APPLYING ONE COLOR OVER ANOTHER OR INTERMIXING SEVERAL COLORS OF STAIN. HIGHLIGHT COLORATION SHALL BE BY HAND STAINING OR OTHER SUITABLE "ANTIQUING" METHODS. A MINIMUM OF FIVE STAIN COLORS WILL BE REQUIRED.

GROUT PATTERN JOINTS SHALL HAVE THE APPEARANCE OF NATURAL GRAY MORTARED JOINTS. "THE MORTAR JOINT," SHALL BE "MNDOT GREY MODIFIED" COLOR AND SHALL BE CLEAR COATED WITH ANTI-GRAFFITI MATERIAL. COLOR SAMPLES WILL BE DEVELOPED BY THE CONTRACTOR USING THE TEST PANEL MOCK-UPS DESCRIBED IN SB- 8 AND THE COLOR INFORMATION CONTAINED HEREIN. COLORS SHALL BE DERIVED FROM REAL STONE AND THE RETAINING WALL DESCRIBED ABOVE. THESE COLOR SAMPLES SHALL REMAIN THE PROPERTY OF SHAKOPEE.

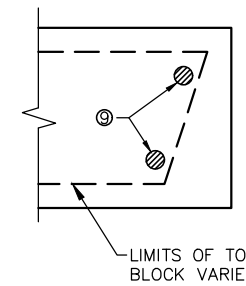
NOTES:

- LOCATION OF WALL REFERENCE LINE VARIES. WALL ALIGNMENT AND REFERENCE LINE LOCATED AT TOE OF WALL AND BACK FACE OF WALL CAP. REFER TO THE PLAN AND PROFILE SHEETS FOR MINIMUM REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY THE WALL REFERENCE LINE, ACCOUNTING FOR WALL MANUFACTURER'S BATTER, PMBW BLOCK DIMENSIONS, AND CAP BLOCK DIMENSIONS. CONTRACTOR SHALL NOT DECREASE THE SIDEWALK WIDTH. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND SURVEY PROPOSED WALL REFERENCE LINE ONCE PMBW MANUFACTURER'S SHOP DRAWINGS HAVE BEEN APPROVED.
- ALL EXPOSED FACES OF PREFABRICATED MODULAR BLOCKS SHALL BE TEXTURED, SEE SPECIAL PROVISIONS.
- PAY LIMITS (2V:1H). ACTUAL EXCAVATION SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS: EXCAVATION BEYOND THESE LIMITS AT CONTRACTOR'S EXPENSE.
- THE WRAP LENGTH FOR GEOTEXTILE FABRIC SHALL NOT BE MORE THAN 6".
- 6" THERMOPLASTIC PERFORATED PIPE, SPEC. 3245. WRAP WITH TYPE 1 GEOTEXTILE, SPEC. 3733, INSTALLATION AS PER SPEC. 2502. CONNECT TO DRAINAGE SYSTEM OR OUTLET THROUGH WALL USING 6" T.P. NON-PERFORATED PIPE WITH RODENT SCREEN. ALL WORK AND MATERIALS ASSOCIATED WITH CONSTRUCTING THE 4" DRAINS ARE INCLUDED IN THE BID ITEM "6" PERFORATED PVC PIPE DRAIN"
- 1'-0" MIN. DRAINAGE ZONE, COARSE AGGREGATE, SPEC. 3149.2.H.
- TOP OF WALL BLOCK MAY EXTEND UP TO 2" MIN. ABOVE FINISHED GRADE AT BACK FACE OF WALL.
- PREFABRICATED CAP BLOCK DIMENSIONS MAY VARY BY MANUFACTURER. THIS PLAN ASSUMES A 2'-6" WIDE X 6" THICK CAP. PREFABRICATED CAP BLOCK SHALL HAVE A MAXIMUM CAP THICKNESS OF 9".
- CLEAN AND APPLY 1/2" THICK X 3" DIA. BEAD OF ADHESIVE TO TOP COURSE PRIOR TO PLACING CAP BLOCK. ADHESIVE SHALL WITHSTAND MOISTURE AND TEMPERATURE CHANGES, REMAIN FLEXIBLE, AND BE SPECIFICALLY FORMULATED FOR BONDING MASONRY TO MASONRY. ALL WORK AND MATERIALS ASSOCIATED WITH CONSTRUCTING THE ADHESIVE FOR THE CAP BLOCKS ARE INCLUDED IN THE BID ITEM "PREFABRICATED MODULAR BLOCK WALL".

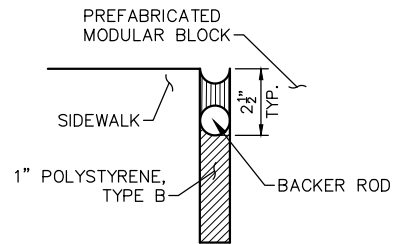
FILL BELOW LEVELING PAD SHALL BE GRANULAR MATERIAL PER SPEC 3149.2.B.1. COMPACT PER REQUIREMENTS OF SPEC 2451 AND 2106. A GEOTECHNICAL REPRESENTATIVE, UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER, SHOULD OBSERVE FILL PLACEMENT AND PERFORM TESTING. FOUNDATION PREPARATION SHALL INCLUDE VISUAL INSPECTION OF FOUNDATION SUBGRADE SOILS WITH HAND AUGERS PROBES AND DCP TESTS AS NECESSARY TO EVALUATE THE SOILS. ALL WORK AND MATERIALS ASSOCIATED WITH THE LEVELING PAD AND FILL ARE INCLUDED IN THE BID ITEM "PREFABRICATED MODULAR BLOCK WALL".



TYPICAL SECTION THRU PREFABRICATED MODULAR BLOCK RETAINING WALL (WITHOUT REINFORCEMENT)



PARTIAL PLAN VIEW - CAP BLOCK (BOTTOM OF CAP SHOWN)



DETAIL "A" (TOP & SIDES)

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No.	Date	Revisions	App.
2	4/16/2024	INCIDENTAL NOTE CLARIFICATION	MAK

DRAWING NAME	2ND AVE-P-RET-WALL.dwg
DESIGNED BY:	MAK
DRAWN BY:	MJK
CHECKED BY:	MAK
DATE:	03/19/2024
PROJECT NO.	16100202

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael A. Kirsch
MICHAEL A. KIRSCH
DATE: 03/19/2024 MN LIC. NO. 59057

CITY OF SHAKOPEE
LEWIS STREET AND 2ND AVENUE
PARKING LOT IMPROVMENTS

SHAKOPEE

RETAINING WALL DETAILS
AND NOTES

CITY PROJECT	STORM 24-001	SHEET NO.
CITY PROJECT	PA-24-03	20
CITY PROJECT	PA-24-05	

38

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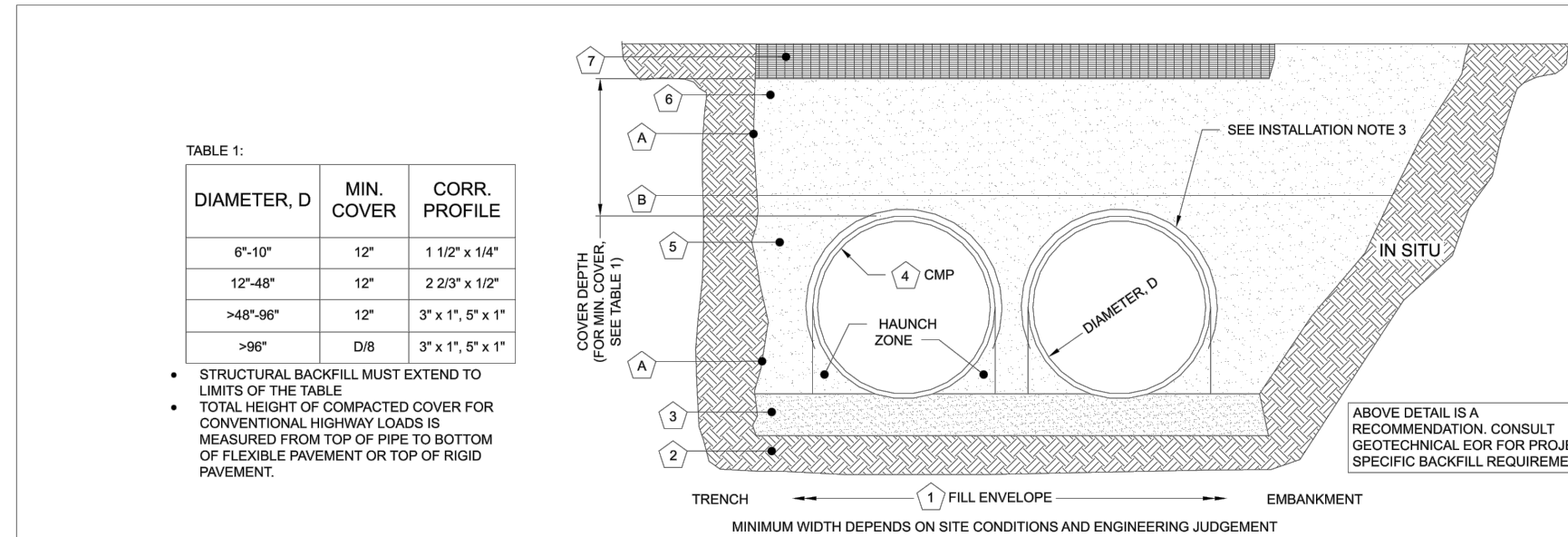


TABLE 1:

DIAMETER, D	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
>48"-96"	12"	3" x 1", 5" x 1"
>96"	D/8	3" x 1", 5" x 1"

- STRUCTURAL BACKFILL MUST EXTEND TO LIMITS OF THE TABLE
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT.

INSTALLATION NOTES

1. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES.
2. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.
3. AN HDPE MEMBRANE LINER WILL BE PLACED ON THE CROWN OF EACH PIPE TO PROVIDE AN IMPERMEABLE BARRIER AGAINST ENVIRONMENTAL CHANGES THAT MAY ADVERSELY AFFECT THE SYSTEM OVER TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL TECHNICAL DETAILS.

ABOVE DETAIL IS A RECOMMENDATION. CONSULT GEOTECHNICAL EOR FOR PROJECT SPECIFIC BACKFILL REQUIREMENTS.

TABLE 2: PERFORATED STANDARD

CMP RETENTION STANDARD BACKFILL SPECIFICATIONS		
MATERIAL LOCATION	MATERIAL SPECIFICATION	DESCRIPTION
1 FILL ENVELOPE WIDTH	PER ENGINEER OF RECORD	MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE SUGGESTED MINIMUM TRENCH WIDTH, OR EOR RECOMMENDATION: PIPE ≤ 12": D + 16" PIPE > 12": 1.5D + 12"
2 FOUNDATION	AASHTO 26.5.2 - PER ENGINEER OF RECORD	PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND FOUNDATION BROUGHT BACK TO GRADE WITH A FILL MATERIAL APPROVED BY THE ENGINEER OF RECORD.
3 BEDDING	AASHTO M 43: 3, 357, 4, 467, 5, 56, 57	ENGINEER OF RECORD TO DETERMINE IF BEDDING IS REQUIRED. PIPE MAY BE PLACED ON THE TRENCH BOTTOM OF A RELATIVELY LOOSE, NATIVE SUITABLE WELL GRADED GRANULAR MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, 2" MIN DEPTH. THE BEDDING MATERIAL MAY BE SUITABLE OPEN GRADED GRANULAR BEDDING CONFORMING TO AASHTO SOIL CLASSIFICATIONS A1, A2, OR A3 WITH MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1
4	CORRUGATED METAL PIPE	
5 BACKFILL	FREE-DRAINING, ANGULAR, WASHED-STONE PER AASHTO M 43: 3, 357, 4, 467, 5, 56, 57 OR APPROVED EQUAL * INCIDENTAL TO UNDERGROUND INFILTRATION SYSTEM	HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION WITHOUT SOFT SPOTS. BACKFILL SHALL BE PLACED IN 8" +/- LOOSE LIFTS AND COMPACTED TO 90% STANDARD PROCTOR PER AASHTO T 99. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHOULD BE ADVANCED ALONG THE LENGTH OF THE SYSTEM TO AVOID DIFFERENTIAL LOADING. WHERE CONVENTIONAL COMPACTION TESTING IS NOT PRACTICAL, THE MATERIAL SHALL BE MECHANICALLY COMPACTED UNTIL NO FURTHER YIELDING OF MATERIAL IS OBSERVED UNDER THE COMPACTOR. AREAS WITH HIGH WATER TABLE FLUCTUATIONS THAT INTERACT WITH THE PIPE ZONE, CONSIDER INSTALLING A GEOTEXTILE SEPARATION LAYER TO PREVENT SOIL MIGRATION. **IN
6 COVER MATERIAL	UP TO MIN. COVER - AASHTO M 145: A-1, A-2, A-3 ABOVE MIN. COVER - PER ENGINEER OF RECORD	COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROADBASE MATERIAL WITHIN MIN COVER LIMITS
7 RIGID OR FLEXIBLE PAVEMENT (IF APPLICABLE)	PER ENGINEER OF RECORD	FLEXIBLE PAVEMENT SHOULD NOT BE COUNTED AS PART OF THE FILL HEIGHT OVER THE CMP. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD.
A OPTIONAL SIDE GEOTEXTILE	NONE	GEOTEXTILE LAYER IS RECOMMENDED ON SIDES OF EXCAVATION TO PREVENT SOIL MIGRATION.
B GEOTEXTILE BETWEEN LAYERS	NONE	IF SOIL TYPES DIFFER AT ANY POINT ABOVE PIPE INVERT, A GEOTEXTILE LAYER IS RECOMMENDED TO BE PLACED BETWEEN THE LAYERS TO PREVENT SOIL MIGRATION.

NOTES:

- FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER /2 BUT NO LESS THAN 12" FOR DIAMETERS <72". FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING IS 36". CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING.
- * APPROVED REGIONAL EQUIVALENTS FOR SECTION 5 INCLUDE CA-7, MIDOT 6AA, 6A, OR 5G, PROVIDED THEY MEET THE PARTICLE SIZES INDICATED.

MANUFACTURER RECOMMENDED BACKFILL

NOT TO SCALE

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DATE	REVISION DESCRIPTION	BY

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CONTECH
CMP DETENTION SYSTEMS
CONTECH
DYODS
DRAWING

DYO47074 Shakopee 2nd Avenue Parking Lot Improvements
72 Infiltration System Revised 3/2/2024
Shakopee, MN
DETENTION SYSTEM

PROJECT No.: 26755	SEQ. No.: 47074	DATE: 3/14/2024
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		1

No.	Date	Revisions	App.
2	4/16/2024	FILL NOTE	MAK

Kimley»Horn

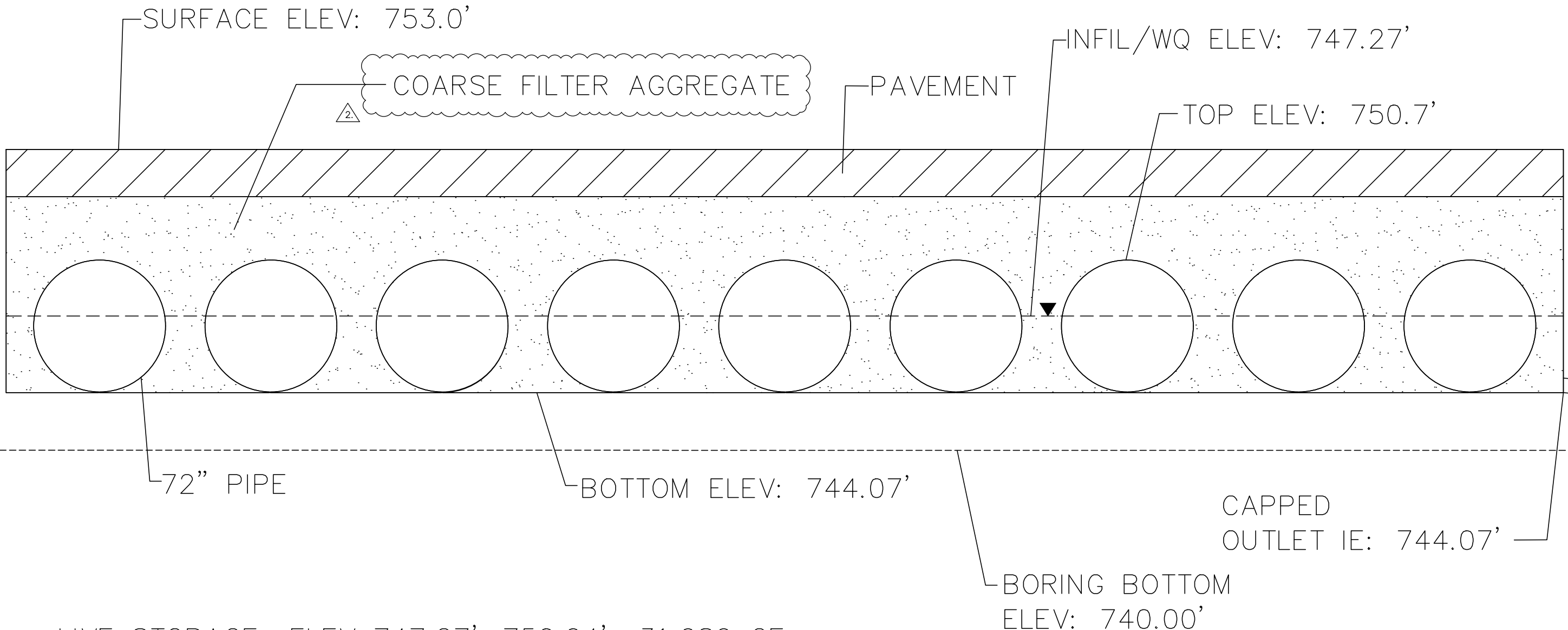
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SHAKOPEE

CITY OF SHAKOPEE
LEWIS STREET AND 2ND AVENUE
PARKING LOT IMPROVMENTS
STORMWATER DETAILS

CITY PROJECT	STORM 24-001	SHEET NO. 28
CITY PROJECT	PA-24-03	
CITY PROJECT	PA-24-05	

38



LIVE STORAGE: ELEV 747.27'–750.04': 31,686 CF
 VOLUME MANAGEMENT: ELEV 744.07'–747.27': 35,240 CF
 TOTAL STORAGE: ELEV 744.07'–750.04': 66,926 CF

NOTE: NOT TO SCALE. SEE MANUFACTURER DETAILS FOR SYSTEM SIZING AND SPACING

k:\TWC_Civil\CITY\SHAKOPEE\2ND AVE PARKING LOT AND STORMWATER CAD\Plan Sheets\STRM-DET.dwg April 16, 2024 - 12:32pm

No.	Date	Revisions	App.
2	4/16/2024	FILL NOTE	MAK

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SHAKOPEE
 CITY OF SHAKOPEE
 LEWIS STREET AND 2ND AVENUE
 PARKING LOT IMPROVEMENTS
 STORMWATER DETAILS

CITY PROJECT	STORM 24-001
CITY PROJECT	PA-24-03
CITY PROJECT	PA-24-05

SHEET NO.
31
38