

LEGEND

	PROPERTY LINE	T B	TOP / BOTTOM ELEVATION
	EXISTING CONTOUR	x900.00EX	EXISTING SPOT GRADE
	PROPOSED CONTOUR	x900.00	PROPOSED TOP OF PAVEMENT/FINISH GRADE ELEVATION
	PROPOSED RIDGE LINE	x900.00M	MATCH EXISTING GRADE
	PROPOSED REVERSE CURB (DETAIL ON C5.1)	o	EXISTING / PROPOSED MANHOLE
	DRAINAGE FLOW ARROW	■	EXISTING / PROPOSED CATCH BASIN
		⊗	EXISTING VALVE
		⦿	EXISTING HYDRANT

NOTES

- FOR ADDITIONAL INFORMATION REFERENCE THE STANDARD NOTES SHEET, STANDARD DETAILS SHEET(S), AND ANY MUNICIPALITY AND/OR JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
- ALL ELEVATIONS SHOWN ARE TOP OF PAVEMENT/FINISH GRADE UNLESS OTHERWISE NOTED.
- PROPOSED ELEVATIONS FOR STRUCTURES ARE:
HYDRANT = BASE FLANGE
VALVE/MANHOLE/CLEANOUT = RIM
CATCH BASIN/INLET = RIM/FLOW LINE
- WE CERTIFY THAT THE GRADING OF THE PROPOSED SITE WILL NOT CREATE A DRAINAGE PROBLEM ON ANY ADJACENT PARCEL.

IMPORTING OF OFF-SITE MATERIAL

IMPORTING FILL MATERIAL FROM AN OFF-SITE LOCATION WITHOUT PRIOR WRITTEN APPROVAL FROM THE KROGER PROJECT MANAGER IS STRICTLY PROHIBITED. IDENTIFICATION OF OFF-SITE BORROW LOCATIONS AND MATERIAL MUST BE COORDINATED AND DOCUMENTED WITH THE SWPPP. A KROGER APPROVED TESTING FIRM MUST VERIFY THE SUITABILITY OF ALL OFF-SITE MATERIAL. THIS INCLUDES AN ANALYSIS TO INSURE THAT NO ENVIRONMENTAL CONTAMINATION IS PRESENT. IF ANY MATERIAL IS BROUGHT ON SITE WITHOUT PRIOR WRITTEN APPROVAL OF THE KROGER PROJECT MANAGER, THE CONTRACTOR WILL BEAR ALL COSTS ASSOCIATED WITH REMOVED THE MATERIAL, TESTING FOR CONTAMINATION, MONITORING THE CLEAN-UP OPERATION, DISPOSAL IN AN APPROVED LANDFILL, AND CERTIFYING THAT THE KROGER SITE IS ENVIRONMENTALLY CLEAN. IF REQUESTED, THE KROGER PROJECT MANAGER OR KROGER'S CONSULTANTS MUST BE GRANTED UNFETTERED ACCESS TO ANY AND ALL BORROW SITE.

DEWATERING NOTE

CONTRACTOR SHALL DESIGN, FURNISH, INSTALL, TEST, OPERATE, MONITOR, AND MAINTAIN DEWATERING SYSTEM OF SUFFICIENT SCOPE, SIZE, AND CAPACITY TO CONTROL HYDROSTATIC PRESSURES AND TO LOWER, CONTROL, REMOVE, AND DISPOSE OF GROUND WATER AND PERMIT EXCAVATION AND CONSTRUCTION ON DRY, STABLE SUBGRADES. REFER TO SPECIFICATION SECTION 312319 FOR ADDITIONAL INFORMATION.

BUILDING PAD PREPARATION NOTES

- UPON COMPLETION OF DEMOLITION ACTIVITIES AND REMOVAL OF ALL FOUNDATIONS AND TO BE ABANDONED UTILITIES, BACKFILL ASSOCIATED TRENCHES AND EXCAVATIONS WITH SUITABLE STRUCTURAL FILL. BACKFILL MATERIALS AND PLACEMENTS TO BE CONSISTENT WITH RECOMMENDATIONS INCLUDED IN GEOTECHNICAL ENGINEERING REPORT BY CEC DATED APRIL 13, 2021. ALL EXCAVATION BACKFILL TO BE MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER.
- ANY EXISTING FILLS UNDER THE EXPANSION PAD AND FOOTINGS SHALL BE REMOVED AND REPLACED WITH ENGINEERED FILL (OR OTHER MATERIAL ACCEPTABLE TO THE KROGER GEOTECHNICAL CONSULTANT).
- MAINTAIN DRAINAGE DURING DEMOLITION TO MINIMIZE PONDING OF WATER FROM RAIN EVENTS AND SATURATION OF EXPOSED BUILDING AREA SUBGRADE.
- REGRADE EXISTING SUBGRADE SO THAT AT LEAST 8 INCH LAYER OF MDOT 21AA CAN BE INSTALLED AS A WORKING PLATFORM FOR REMAINING CONSTRUCTION RELATED ACTIVITIES. PROOFROLL SUBGRADE AND RECOMPACT TO MINIMUM 98% OF MDD. NOTE: 8 INCH LAYER OF MDOT 21AA CRUSHED STONE TO INCLUDE 4 INCH COURSE OF DRAINAGE LAYER REQUIRED BENEATH SLAB ON GRADE. SURFACE OF AGGREGATE BASE/DRAINAGE BASE LAYER TO BE PROPERLY PREPARED, GENERALLY FREE OF SOIL CONTAMINANTS AND APPROVED BY REPRESENTATIVE OF GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION OF SOG. DEWATERING AND SUPPLEMENTAL MAINTENANCE GRADING TO BE PERFORMED AS NEEDED THROUGHOUT CONSTRUCTION BY CONTRACTOR TO PROHIBIT DETERIORATION.
- ANY SOFT, LOOSE OR YIELDING AREAS ENCOUNTERED DURING PROOF-ROLLING OPERATIONS SHOULD BE UNDERCUT TO EXPOSE FIRM STABLE SOILS OR REWORKED IN PLACE TO A STABLE ACCEPTABLE CONDITION. UNDERCUT DEPTHS SOMEWHAT GREATER THAN NORMAL MAY BE NEEDED IF CONSTRUCTION OCCURS DURING PERIODS OF INCLEMENT WEATHER. BASED ON BORING INFORMATION, UNDERCUT AND OR REWORKS DEPTHS OF ABOUT 3.5 ARE ANTICIPATED IN THE BUILDING AND PAVEMENT AREAS.

PAVEMENT SUBGRADE PREPARATION NOTES

THE BELOW IS A SUMMARY. GENERAL CONTRACTOR SHALL FOLLOW SPECIFICATIONS AND RECOMMENDATIONS IN THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED APRIL 13, 2021

- WITHIN THE LIMITS OF DISTURBANCE REMOVE EXISTING PAVEMENTS (INCLUDING AGGREGATE BASE), LANDSCAPED AREAS, EXISTING UNSUITABLE FILL, AND DELETERIOUS MATERIALS FOUND BELOW THE PAVEMENT AND BASE AGGREGATE.
- EXISTING BUILDING FOUNDATIONS IN THE AREA OF NEW CONSTRUCTION SHOULD BE REMOVED TO THEIR FULL DEPTH AND REPLACED WITH STRUCTURAL FILL PLACED AND COMPACTED AS DESCRIBED IN THE GEOTECHNICAL REPORT.
- IF FILL MATERIALS ARE ENCOUNTERED, SUCH AS AROUND THE EXISTING FOUNDATION OR UNDER THE BUILDING, THIS FILL MATERIAL IS CONSIDERED UNCONTROLLED/UNDOCUMENTED. THIS FILL SHOULD BE REMOVED AS NECESSARY AND REPLACED WITH STRUCTURAL FILL PLACED AND COMPACTED AS DESCRIBED IN THE GEOTECHNICAL REPORT.
- EXPOSED SUBGRADE SHOULD BE THOROUGHLY RE-COMPACTED AND THEN PROOF-ROLLED TO EVALUATE ITS STABILITY.
- IN AREAS WHERE EXISTING UNSUITABLE FILL IS REMOVED, SUBSEQUENT TO SITE STRIPPING, AREAS CURRENTLY AT GRADE OR THAT REQUIRED NEW FILL TO REACH THE PLANNED SUBGRADE ELEVATION SHOULD BE PROOFROLLED OR EVALUATED.
- FILL PLACED TO SUPPORT FOUNDATIONS, FLOOR SLABS AND PAVEMENTS, INCLUDING UST AND UTILITY TRENCH BACKFILL, SHALL BE CONSTRUCTED AS ENGINEERED FILL.
- GROUNDWATER WAS NOT OBSERVED IN ANY SOIL BORINGS.
- ALL ENGINEERED FILL (ON-SITE AND IMPORTED MATERIAL) MUST BE TESTED BY KROGER GEOTECHNICAL ENGINEER PRIOR TO USE. FILL MUST MEET CRITERIA RECOMMENDED IN THE GEOTECHNICAL REPORT.
- EXISTING AGGREGATE BASE CAN BE SALVAGED AN RE-USED AS ENGINEERED FILL AS LONG AS IT MEETS THE FILL REQUIREMENTS RECOMMENDED IN THE GEOTECHNICAL REPORT.

BENCHMARKS

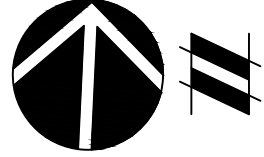
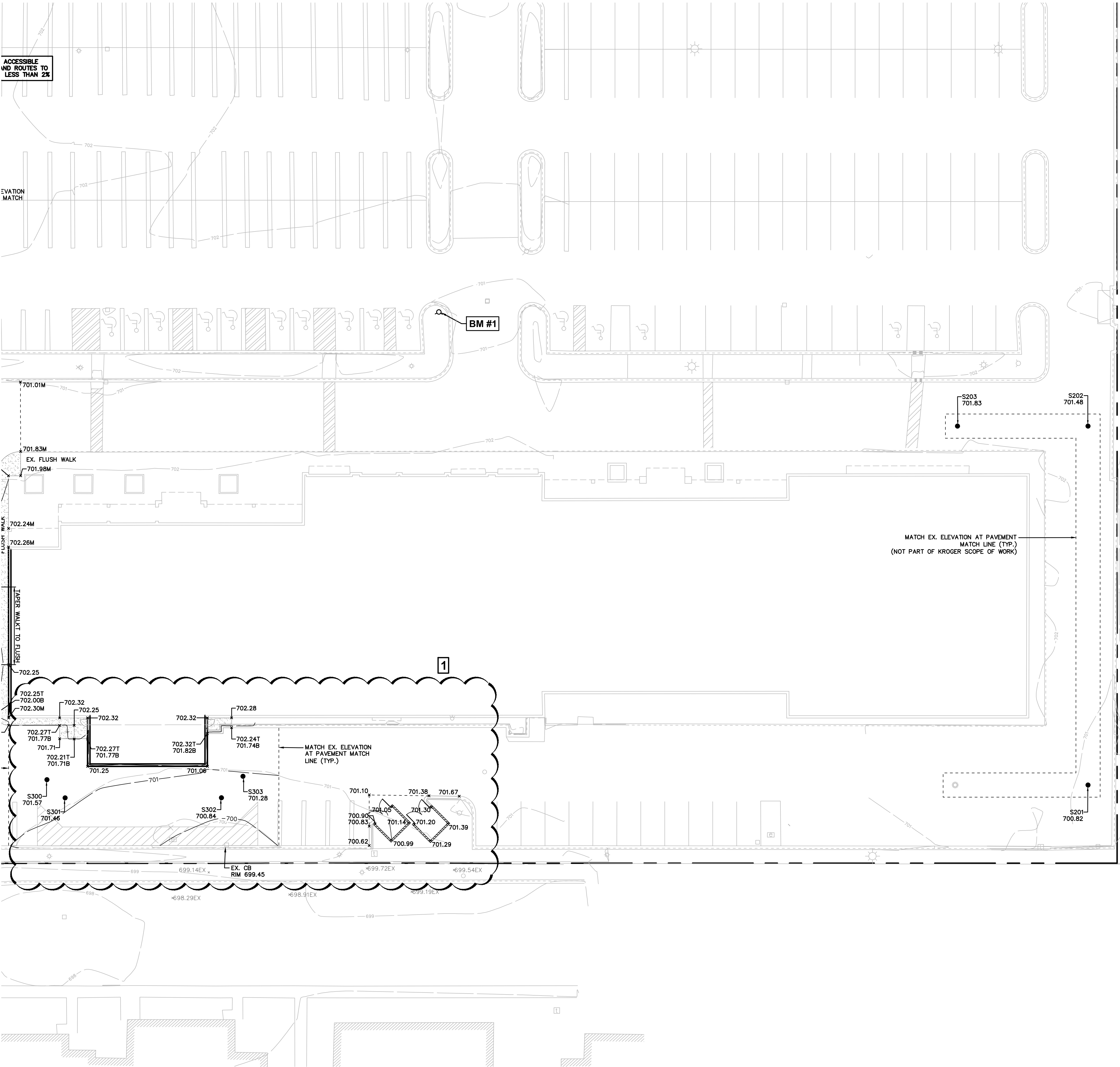
SOURCE BENCHMARK:
NGS PID: DI6221
ELEVATION: 705.42 (NAVD88)

SITE BM #3:
ARROW ON FIRE HYDRANT IN CURB ISLAND
AT SOUTHWEST PROPERTY CORNER
ELEVATION: 701.22 (NAVD88)

SITE BM #1:
ARROW ON FIRE HYDRANT IN CURB ISLAND
NORTH OF SOUTHERLY BUILDING
ELEVATION: 704.36 (NAVD88)

SITE BM #4:
ARROW ON FIRE HYDRANT IN CURB ISLAND
WEST OF KROGER BUILDING
ELEVATION: 704.25 (NAVD88)

SITE BM #2:
ARROW ON FIRE HYDRANT IN CURB ISLAND
EAST OF KROGER BUILDING
ELEVATION: 704.88 (NAVD88)



Know what's below.

Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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THE KROGER COMPANY
STORE D-615 EXPANSION
SITE PLANS
CITY OF LIVONIA
WAYNE COUNTY, MICHIGAN

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DATE
JULY 13, 2021
REVISIONS/SUBMITTALS
07-13-2021 SUBMIT TO CITY
10-27-2021 OTB
02-01-2022 REV PER CITY
03-25-2022 REV PER CITY
05-10-2022 BULLETIN 1

0 10 20
SCALE: 1"=20'

DRAWN BY: EM
CHECKED BY: EM
PROJECT MANAGER: MMc
JOB #: 18003949
SHEET NO.

C1.4.4