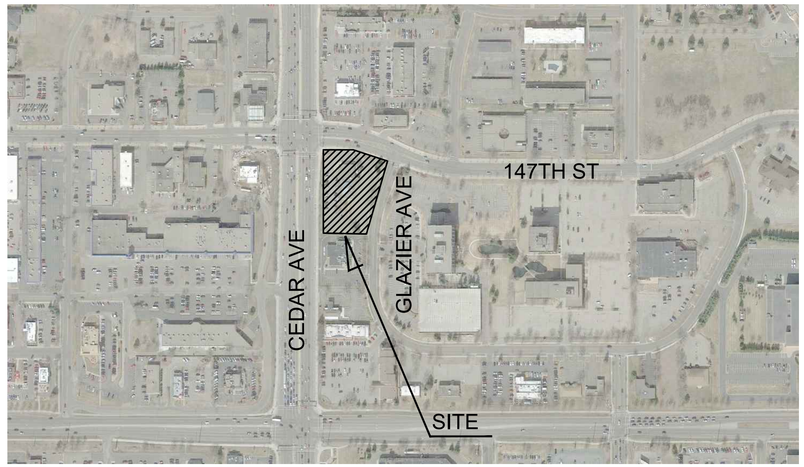
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SITE DEVELOPMENT PLANS
FOR
RYAN REAL ESTATE REDEVELOPMENT - APPLE VALLEY

14750 CEDAR AVENUE
SECTION 28, TOWNSHIP 115N, RANGE 20W
APPLE VALLEY, DAKOTA COUNTY, MINNESOTA

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
PREPARED BY: BRIAN M. WURDEMAN, PE
2550 UNIVERSITY AVE W, SUITE 238 N
ST. PAUL, MN 55114
TELEPHONE (651) 645-4197

OWNER / DEVELOPER
LAUNCH PROPERTIES
800 LASALLE AVE. SUITE 1610
MINNEAPOLIS, MN 55402
TELEPHONE: (612) 564-4060



VICINITY
N.T.S.

NORTH

NOTES:

1. CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THE SITE MATCH WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION.
2. IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A 22" X 34" SHEET.
3. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
4. ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

DRAWING INDEX

SHEET NO.	SHEET TITLE
C0.0	COVER SHEET
C3.0	SITE PLAN
C4.0	GRADING AND DRAINAGE PLAN
C5.0	UTILITY PLAN
L1.0	LANDSCAPE PLAN

811 Know what's below. Call before you dig.

PRELIMINARY - NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2017 KIMLEY-HORN AND ASSOCIATES, INC.
2550 UNIVERSITY AVENUE WEST, SUITE 238N, ST. PAUL, MN 55114
PHONE: 651-645-4197
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.

BRIAN M. WURDEMAN
MN
DATE: 05/09/2018 LIC. NO. 53113

KHA PROJECT	160734008.1.130
DATE	05/09/2018
SCALE	AS SHOWN
DESIGNED BY	B.J.E.W
DRAWN BY	B.J.E.W, A.B
CHECKED BY	W.M.,B.W

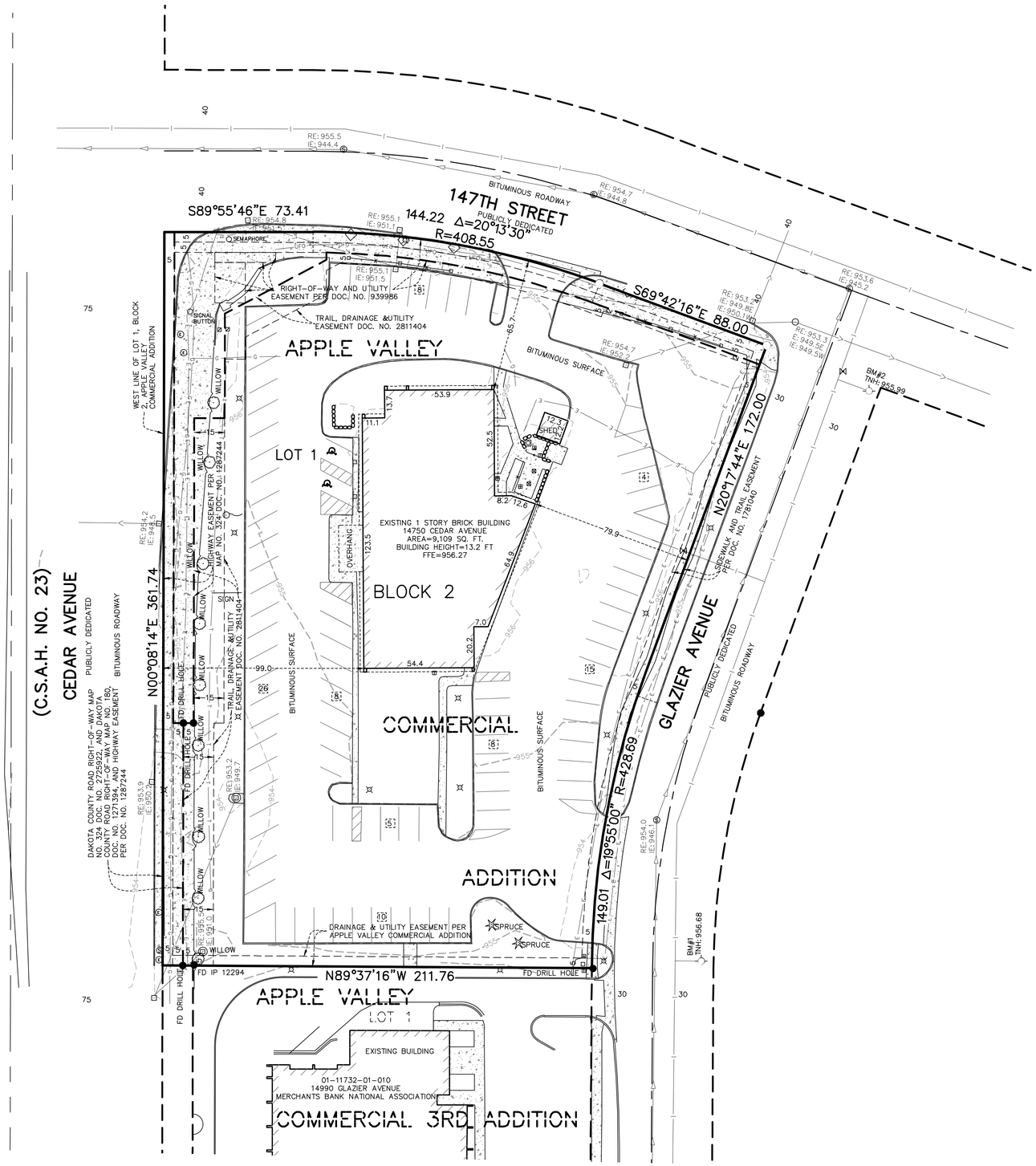
COVER SHEET

LAUNCH PROPERTIES
APPLE VALLEY, MN

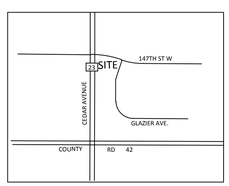
SHEET NUMBER
C0.0

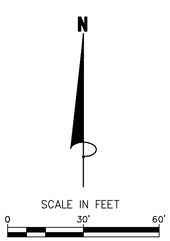
LEGEND

- SET MONUMENT
- FOUND MONUMENT
- FOUND CAST IRON MONUMENT
- LIGHT POLE
- SPRINKLER HEAD
- AIR CONDITIONER UNIT
- SIGN
- BOLLARD
- SIGNAL POLE
- FLAGPOLE
- POWER POLE
- GUY WIRE
- HAND HOLE
- ELECTRIC METER
- TRANSFORMER
- GAS VALVE
- GAS METER
- TELEPHONE PEDESTAL
- TELEVISION PEDESTAL
- AUTO SPRINKLER
- CURB STOP
- HYDRANT
- POST INDICATOR VALVE
- GATE VALVE
- LIFT STATION
- FLARED END SECTION
- CATCH BASIN
- CATCH BASIN MANHOLE
- MANHOLE
- SANITARY SEWER MANHOLE
- STORM MANHOLE
- WATER MANHOLE
- COMMUNICATION MANHOLE
- ELECTRIC MANHOLE
- CHAIN LINK FENCE
- UNDERGROUND GAS
- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND TELEPHONE
- RETAINING WALL
- PARKING STALL COUNT
- CONCRETE SURFACE
- DISABLED PARKING STALL



VICINITY MAP





SURVEY NOTES

1. The bearing system is based on the West line of Lot 1, Block 2, APPLE VALLEY COMMERCIAL ADDITION, which is assumed to bear North 00 degrees 08 minutes 14 seconds East.
2. Field work was completed on 1/18/2017.

SURVEYED PROPERTY

Description from title commitment:

Lot 1, Block 2, Apple Valley Commercial Addition, Dakota County, Minnesota.

Abstract Property

Referencing Title Commitment No. 548476, dated 11/2/8/2016, that Land Title, Inc, as agent for Stewart Title Guaranty Company has provided us, the following comments on easements etc., that the property is subject to in Schedule B, Section 2 thereof using the same numbering system as in said Schedule B, Section 2. Items 1-12 and 14 are not Survey related items and therefor are not listed below.

13. Drainage and utility easements over the subject property as shown on the recorded plat. **The easement is shown on the survey.**
15. Right-of-Way and Utility Easement in favor of the City of Apple Valley, a Minnesota municipal corporation, dated May 10, 1990, filed May 31, 1990 as Document Number 939986. **The easement is shown on the survey.**
16. Dakota County Road Right-of-Way Map No. 324 (County State Aid Highway No. 23/ Cedar Avenue) filed April 21, 2010 as Document Number 2725922. **The easement is shown on the survey.**
17. Sidewalk and Trail Easement in favor of the City of Apple Valley, a Minnesota municipal corporation dated May 4, 2001, filed June 8, 2001 as Document Number 1781040. **The easement is shown on the survey.**
18. Highway Easement in favor of Dakota County dated July 6, 1995, filed July 10, 1995 as Document Number 1287244. **The easement is shown on the survey.**
19. Dakota County Road Right-of-Way Map No. 180 filed March 30, 1995 as Document Number 1271394. **The easement is shown on the survey.**
20. Trail, Drainage & Utility Easement in favor of Dakota County dated April 18, 2011, filed July 25, 2011 as Document Number 2811404. **The easement is shown on the survey.**

"TABLE A" NOTES

1. Monuments have been placed at all corners of the boundary of the property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner, as shown on the survey.
2. The subject property address is 14750 Cedar Avenue, and its property identification number is 01-11730-02-010.
3. The subject property lies within an area where the flood map is not printed.
4. The gross area of the surveyed property is 2.00 Acres or 87,271 Square Feet.
5. The vertical datum is based on NGVD29 datum.
   Benchmark #1
   Top nut of hydrant located near south entrance. Elevation: 956.68
   Benchmark #2
   Top nut of hydrant located at SE quadrant of the intersection of 147th Street and Glazier Avenue . Elevation: 955.99
7. a) The building and exterior dimensions of the outside wall at ground level are shown on the survey. It may not be the foundation wall.
   b) Square footage of the existing building is shown on the survey.
   c) Measured height of the the building above grade is shown on the survey.
8. Substantial features observed in the process of conducting the fieldwork are shown on the survey.
9. The parking areas and striping on the surveyed property are shown. There are 2 disabled parking stalls and there are 84 regular parking stalls for a total of 86 parking stalls.
11. 11. Underground utilities are shown per:
    Gopher State One Call, Ticket No. 170450856, dated 2/21/2017.
    A Gopher State One Call (GSOC) request was placed on 2/14/2017 for utility locates on this site. Source information from plans and markings has been combined with observed evidence of utilities to to develop a view of underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, some utility locate requests from surveyors may be ignored or result in an incomplete response. The surveyor has compiled the markings made on the ground, the maps provided, and the observed evidence to show utilities hereon. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary. Pursuant to MS 216.D contact Gopher State One Call at 651-454-0002 prior to any excavation.
13. The names, address and property identification numbers of adjoining owners according to current public records are shown on the survey.

CERTIFICATION

To Launch Properties, LLC, a Minnesota limited liability company, C.J. Ryan, LLC, a Minnesota limited liability company, Stewart Title Guaranty Company and Land Title, Inc. :

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, and 13 of Table A thereof. The fieldwork was completed on January 18, 2017.

Date of Plat or Map: February 28, 2017
James R. Hill, Inc.

Marcus F. Hampton, Land Surveyor, MN License No. 47481

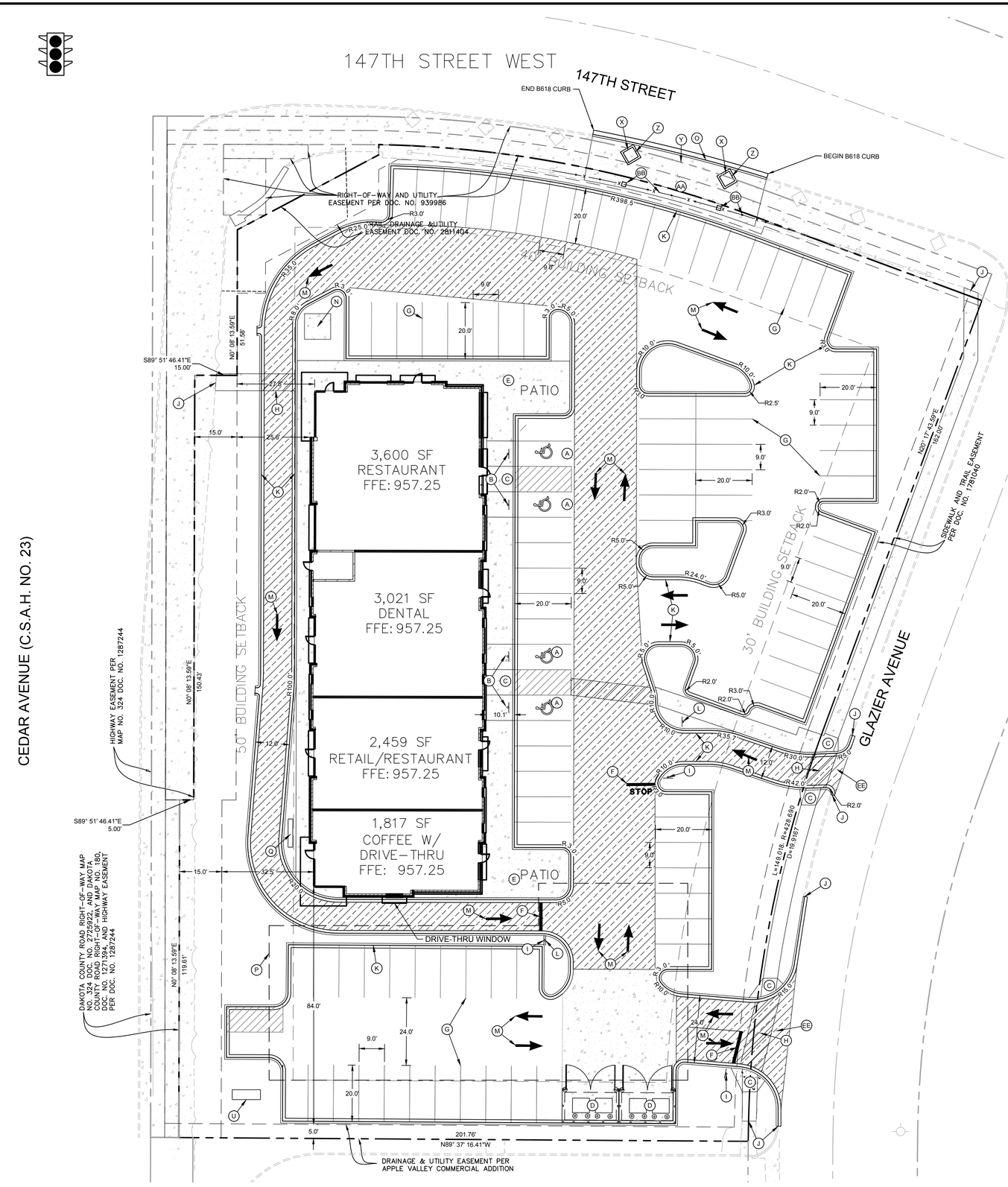
James R. Hill, Inc.
PLANNERS / ENGINEERS / SURVEYORS
2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337
PHONE: (952)890-6044 FAX: (952)890-6244
www.jhinc.com mhampton@jhinc.com

14750 CEDAR AVENUE
APPLE VALLEY, MN 55124
ALTA/NSPS LAND TITLE SURVEY
FOR
RYAN REAL ESTATE

DRAWN BY JCB
DATE 1/20/2017
REVISIONS
2/28/17 Add topo and utilities
6/29/27 TDU EASEMENT
CAD FILE 23362M.DWG
PROJECT NO. 23362-10
FILE NO. 1-17-014
SHEET 1 OF 1

F:\Civil 3D Projects\23362\23362m.dwg - 6/29/2017 01:52PM

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SITE LEGEND

- PROPERTY LINE
- SETBACK LINE
- PROPOSED CURB AND GUTTER
- PROPOSED SIENNA COLORED CONCRETE. SEE ARCHITECTURAL SITE PLAN
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT

BUILDING A DATA SUMMARY

AREAS	
PROPOSED PROPERTY	±87,266 SF (±2.00 AC)
PROPOSED BUILDING	11,073 SF (12.7% OF TOTAL PROPERTY AREA)
PARKING	
REQUIRED PARKING	RETAIL/DENTAL: 1 STALL/150 SF RESTAURANT: A STALL/3 SEATS (ASSUMED UP TO 225 SEATS)
PROPOSED PARKING	95 STALLS (8.58 STALLS/1,000 SF)
ADA STALLS REQ'D / PROVIDED	4 STALLS / 4 STALLS

ZONING SUMMARY	
EXISTING ZONING	PLANNED DEVELOPMENT DISTRICT
PROPOSED ZONING	PLANNED DEVELOPMENT DISTRICT
BUILDING SETBACK	MINIMUM 25' FROM ALL ROW/PROPERTY LINES
PROPOSED LANDSCAPE SETBACKS	ALONG CEDAR AVENUE = 0' ALONG 147TH STREET= 0' ALONG GLAZIER= 5' ALONG PROPERTY TO SOUTH = 5'

KEYNOTE LEGEND

- (A) ACCESSIBLE STALL. SEE DETAIL
- (B) ACCESSIBLE SIGN. SEE DETAIL
- (C) CURB RAMP. SEE DETAIL
- (D) DUMPSTER ENCLOSURE. REF ARCH PLANS
- (E) OUTDOOR PATIO. REF ARCH PLANS
- (F) STOP BAR
- (G) PAVEMENT MARKING. 4" SOLID WHITE
- (H) PEDESTRIAN CROSSWALK. SEE DETAIL
- (I) STOP SIGN
- (J) MATCH EXISTING
- (K) B612 CURB AND GUTTER
- (L) "DO NOT ENTER" SIGN
- (M) DIRECTIONAL ARROWS
- (N) TRANSFORMER PAD
- (O) B618 CURB AND GUTTER
- (P) LIMITS OF UNDERGROUND STORMWATER MANAGEMENT
- (Q) MENU BOARD
- (R) NOT IN USE
- (S) NOT IN USE
- (T) NOT IN USE
- (U) MONUMENT SIGN. FOR REFERENCE ONLY.
- (V) NOT IN USE
- (W) NOT IN USE
- (X) PROVIDE TREE GRATE TO MATCH EXISTING. SEE CITY DETAILS (TYP.)
- (Y) PROVIDE STAMPED AND COLORED CONCRETE AND "BANDS" TO MATCH EXISTING. SEE CITY DETAILS (TYP.)
- (Z) PROVIDE ROOT BARRIER (18'-36"). PER CITY STANDARD. COORDINATE WITH CITY PRIOR TO CONSTRUCTION.
- (AA) EXISTING SIDEWALK AND BOULEVARD AREA TO BE CONSTRUCTED TO MATCH ADJACENT EXISTING CONDITIONS. COORDINATE WITH CITY FOR SPECIFICATIONS AND DETAILS.
- (BB) PROVIDE PIERS, CAPS & FENCING TO MATCH EXISTING. SEE CITY DETAILS (TYP.)
- (CC) NOT IN USE
- (DD) NOT IN USE
- (EE) CITY OF APPLE VALLEY COMMERCIAL DRIVEWAY. SEE DETAIL SHEET.

SITE PLAN NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
3. ALL INNER CURBED RADII ARE TO BE 3' AND OUTER CURBED RADII ARE TO BE 10' UNLESS OTHERWISE NOTED. STRIPED RADII ARE TO BE 5'.
4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
5. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY PER PLAN. ALL COST SHALL BE INCLUDED IN BASE BID.
6. NO PROPOSED LANDSCAPING SUCH AS TREES OR SHRUBS, ABOVE AND UNDERGROUND STRUCTURES, OR OTHER OBSTRUCTIONS SHALL BE LOCATED WITHIN EXISTING OR PROPOSED UTILITY EASEMENTS AND RIGHTS OF WAY.
7. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY JAMES R. HILL, INC.
8. TOTAL LAND AREA IS ±2.00 ACRES.
9. CONTRACTOR SHALL REFER TO ARCH/ MEP PLANS FOR SITE LIGHTING & ELECTRICAL PLAN.
10. REFERENCE ARCHITECTURAL PLANS FOR DUMPSTER ENCLOSURE DETAILS.
11. CONTRACTOR SHALL RESTORE SIDEWALK, STREET, CURB AND GUTTER, AND BOULEVARD DAMAGED DURING UTILITY AND DRIVEWAY WORK WITHIN THE RIGHT OF WAY IN ACCORDANCE WITH CITY OF APPLE VALLEY ENGINEERING STANDARDS AND A MANNER ACCEPTABLE TO THE CITY ENGINEER.
12. ABANDONMENT OF WATER AND SANITARY SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF APPLE VALLEY ENGINEERING STANDARDS AND IN A MANNER ACCEPTABLE TO THE CITY ENGINEER.
13. REFER TO FINAL SURVEY OR ALTA PLAT FOR EXACT LOT AND PROPERTY BOUNDARY DIMENSIONS.
14. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
15. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

PRELIMINARY - NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

Kimley»Horn

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2550 UNIVERSITY AVENUE WEST, SUITE 238N, ST. PAUL, MN 55114
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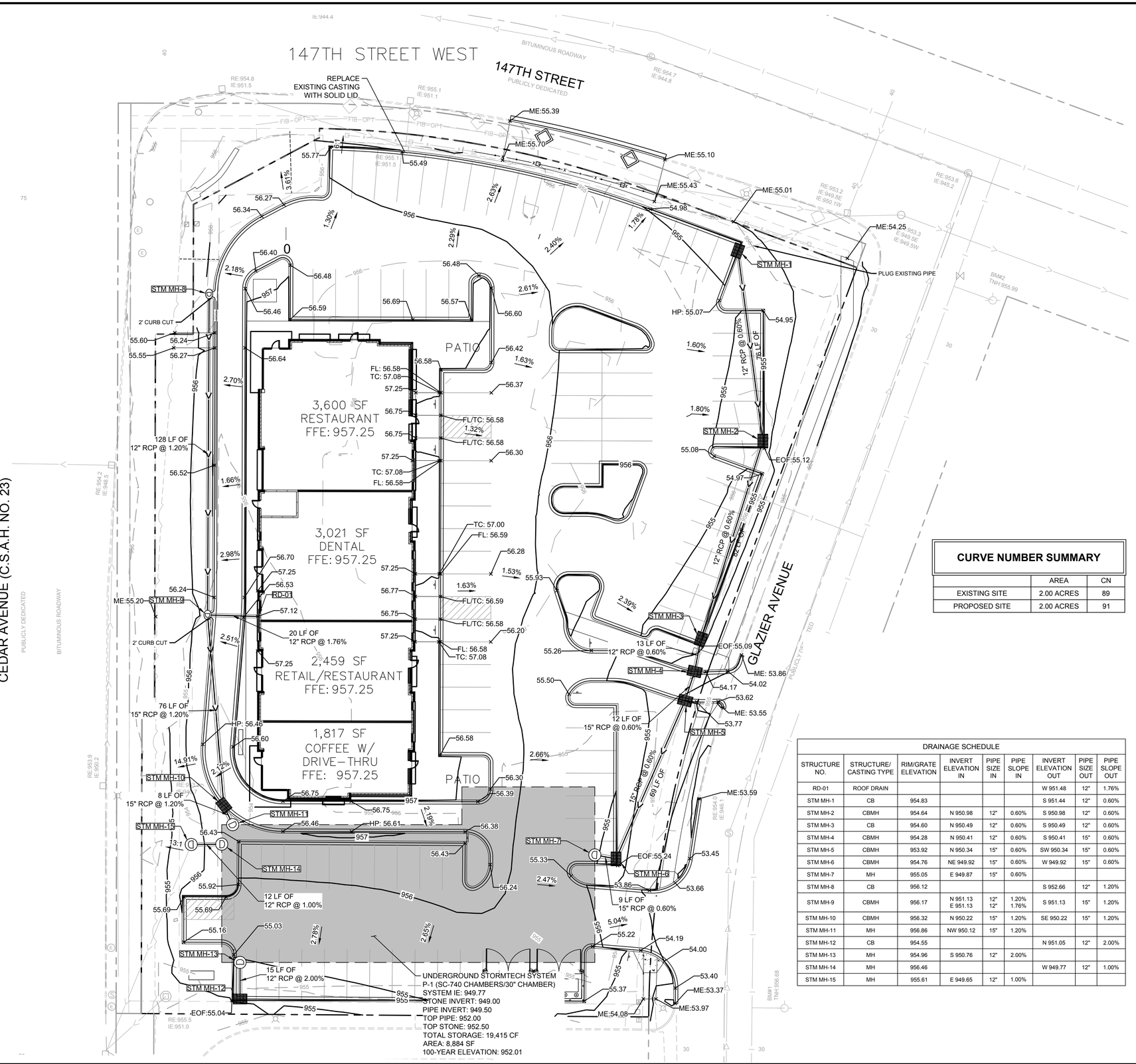
BRIAN M. WURDEMAN
MN
LIC. NO. 53113
DATE: 05/09/2018

KHA PROJECT 160734008.1.130
DATE 05/09/2018
SCALE AS SHOWN
DESIGNED BY B.J.E.W
DRAWN BY B.J.E.W, AB
CHECKED BY WM, BW

SITE PLAN

LAUNCH PROPERTIES
APPLE VALLEY, MN

SHEET NUMBER
C3.0



LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED STORM SEWER
- PROPOSED SPOT ELEVATION
- ME: MATCH EXISTING ELEVATION
- HP: HIGH POINT SPOT ELEVATION
- LP: LOW POINT SPOT ELEVAITON
- EOF: EMERGENCY OVERFLOW ELEVATION
- TC/FL: FLOWLINE/TOP OF CURB ELEVATION
- PROPOSED SURFACE SLOPE
- PROPOSED STORMTECH SYSTEM

GRADING PLAN NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF APPLE VALLEY, SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
2. CONTRACTOR TO CALL GOPHER STATE CALL ONE @ <1-800-252-1166> AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
3. STORM SEWER PIPE SHALL BE AS FOLLOWS:
   RCP PER ASTM C-76
   HDPE: 0" - 10" PER AASHTO M-252
   HDPE: 12" OR GREATER PER ASTM F-2306
   PVC SCH. 40 PER ASTM D-3034
   3.1. STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
   RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443
   HDPE PER ASTM 3212
   PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
4. CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OR EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
5. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
7. CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
8. GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
9. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
10. REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE NOTATION.
11. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES TO PROVIDE POSITIVE DRAINAGE.
12. INSTALL A MINIMUM OF 4" CLASS 5 AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
13. UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
14. ALL SPOT ELEVATIONS/CONTOURS ARE TO GUTTER / FLOW LINE UNLESS OTHERWISE NOTED.
15. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE AND NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2% . IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA COMPLIANCE ISSUES.
16. ALL STORM SEWER CONNECTIONS SHALL BE GASKETED AND WATER TIGHT INCLUDING MANHOLE CONNECTIONS.
17. ALL STORM SEWER PIPE SHALL BE AIR TESTED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
18. MAINTAIN A MINIMUM OF 1.20% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
19. CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "INFALL CURB" WHERE PAVEMENT DRAINS TOWARD GUTTER, AND "OUTFALL" CURB WHERE PAVEMENT DRAINS AWAY FROM GUTTER.

CURVE NUMBER SUMMARY

	AREA	CN
EXISTING SITE	2.00 ACRES	89
PROPOSED SITE	2.00 ACRES	91

DRAINAGE SCHEDULE

STRUCTURE NO.	STRUCTURE/ CASTING TYPE	RIM/GRATE ELEVATION	INVERT ELEVATION IN	PIPE SIZE IN	PIPE SLOPE IN	INVERT ELEVATION OUT	PIPE SIZE OUT	PIPE SLOPE OUT
RD-01	ROOF DRAIN					W 951.48	12"	1.76%
STM MH-1	CB	954.83				S 951.44	12"	0.60%
STM MH-2	CBMH	954.64	N 950.98	12"	0.60%	S 950.98	12"	0.60%
STM MH-3	CB	954.60	N 950.49	12"	0.60%	S 950.49	12"	0.60%
STM MH-4	CBMH	954.28	N 950.41	12"	0.60%	S 950.41	15"	0.60%
STM MH-5	CBMH	953.92	N 950.34	15"	0.60%	SW 950.34	15"	0.60%
STM MH-6	CBMH	954.76	NE 949.92	15"	0.60%	W 949.92	15"	0.60%
STM MH-7	MH	955.05	E 949.87	15"	0.60%			
STM MH-8	CB	956.12				S 952.66	12"	1.20%
STM MH-9	CBMH	956.17	N 951.13 E 951.13	12" 12"	1.20% 1.76%	S 951.13	15"	1.20%
STM MH-10	CBMH	956.32	N 950.22	15"	1.20%	SE 950.22	15"	1.20%
STM MH-11	MH	956.86	NW 950.12	15"	1.20%			
STM MH-12	CB	954.55				N 951.05	12"	2.00%
STM MH-13	MH	954.96	S 950.76	12"	2.00%			
STM MH-14	MH	956.46				W 949.77	12"	1.00%
STM MH-15	MH	955.61	E 949.65	12"	1.00%			

STORMWATER MANAGEMENT INFILTRATION SUMMARY

SITE AREA	2.00 ACRES
INFILTRATION VOLUME REQUIRED (0.042"/ACRE)	3,660 CF
TOTAL INFILTRATION VOLUME PROVIDED	11,813 CF

STORMWATER MANAGEMENT DISCHARGE SUMMARY

SITE AREA	2.00 ACRES
ALLOWABLE DISCHARGE (2.4 CFS/ACRE)	4.80 CFS
PROPOSED 100-YEAR SITE DISCHARGE	4.64 CFS

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY

Kimley»Horn
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BRIAN M. WURDEMAN
MN LIC. NO. 53113
DATE: 05/09/2018

KHA PROJECT 160734008.1.130
DATE 05/09/2018
SCALE AS SHOWN
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CHECKED BY WM,BW

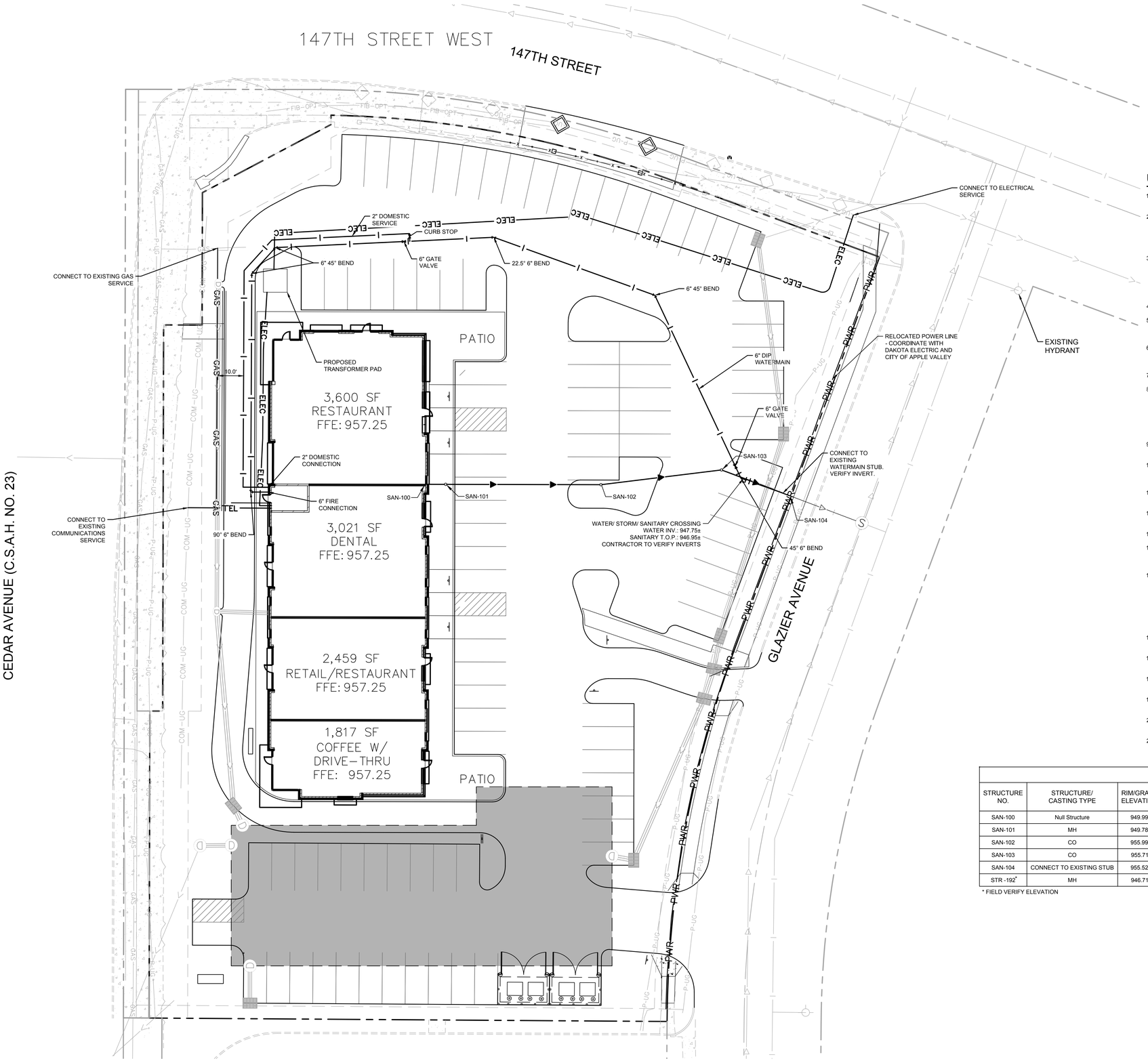
PRELIMINARY - NOT FOR CONSTRUCTION

GRADING AND DRAINAGE PLAN

LAUNCH PROPERTIES
APPLE VALLEY, MN

SHEET NUMBER
C4.0

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LEGEND

- PROPOSED REDUCER
- PROPOSED TEE
- PROPOSED GATE VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED WATERMAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM SEWER
- ELEC — PROPOSED UNDERGROUND ELECTRIC
- TEL — PROPOSED TELEPHONE
- GAS — PROPOSED GAS MAIN
- PROPOSED STORMTECH SYSTEM

UTILITY PLAN NOTES

1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   8" PVC SDR35 PER ASTM D-3034, FOR PIPES LESS THAN 12' DEEP
   8" PVC SDR26 PER ASTM D-3034, FOR PIPES MORE THAN 12' DEEP
   6" PVC SCHEDULE 40 PER ASTM D-3034
   DUCTILE IRON PIPE PER AWWA C150
3. WATER LINES SHALL BE AS FOLLOWS:
   6" AND LARGER, PVC C-900 PER ASTM D 2241
   CLASS 200 UNDER COUNTY ROADS, OTHERWISE CLASS 150
   4" AND LARGER DUCTILE IRON PIPE PER AWWA C150
   SMALLER THAN 3" PIPING SHALL BE COPPER TUBE TYPE "K" PER ANSI 816.22 OR PVC, 200 P.S.I., PER ASTM D1784 AND D2241.
4. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
5. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH RESTRAINTS SUCH AS THRUST BLOCKING, WITH STAINLESS STEEL OR COBALT BLUE BOLTS, OR AS INDICATED IN THE CITY SPECIFICATIONS AND PROJECT DOCUMENTS.
6. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE OR STRUCTURE).
7. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 7'-5" COVER ON ALL WATERLINES.
8. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES, OR ANY OBSTRUCTION (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE SCH. 40 OR C900 WITH MECHANICAL JOINTS AT LEAST 10 FEET ON EITHER SIDE OF THE CENTER LINE OF THE CROSSING. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE FASTENERS AS REQUIRED TO PROVIDE A MINIMUM OF 18" VERTICAL SEPARATION. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
9. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
10. TOPS OF MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS, IN GREEN AREAS, WITH WATERTIGHT LIDS.
11. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
12. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
13. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
14. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE CITY OF APPLE VALLEY WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
15. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
16. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES.
17. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
18. BACKFLOW DEVICES (DDCV AND PRZ ASSEMBLIES) AND METERS ARE LOCATED IN THE INTERIOR OF THE BUILDING. REF. ARCH / MEP PLANS.
19. ALL ONSITE WATERMAINS AND SANITARY SEWERS SHALL BE PRIVATELY OWNED AND MAINTAINED.
20. ALL WATERMAIN STUBOUTS SHALL BE MECHANICALLY RESTRAINED WITH REACTION BLOCKING.
21. ALL SANITARY SEWER LINES SHALL BE INSULATED IF 7' OF COVER CANNOT BE PROVIDED

SANITARY SCHEDULE

STRUCTURE NO.	STRUCTURE/ CASTING TYPE	RIM/GRATE ELEVATION	INVERT ELEVATION IN	PIPE SIZE IN	PIPE SLOPE IN	INVERT ELEVATION OUT	PIPE SIZE OUT	PIPE SLOPE OUT	PIPE MATERIAL
SAN-100	Null Structure	949.99				E 949.45	6"	2.40%	PVC
SAN-101	MH	949.78	W 949.26	6"	2.40%	E 949.26	6"	2.40%	PVC
SAN-102	CO	955.99	W 947.81	6"	2.40%	E 947.81	6"	2.40%	PVC
SAN-103	CO	955.71	W 946.67	6"	2.40%	E 946.67	6"	2.40%	PVC
SAN-104	CONNECT TO EXISTING STUB	955.52	W 945.99	6"	2.40%	E 945.99	6"	1.00%	PVC
STR -192*	MH	946.71	W 945.69	6"	1.00%				

* FIELD VERIFY ELEVATION

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

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No.	REVISIONS	DATE	BY

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.

BRIAN M. WURDEMAN
MN
LIC. NO. 53113
DATE: 05/09/2018

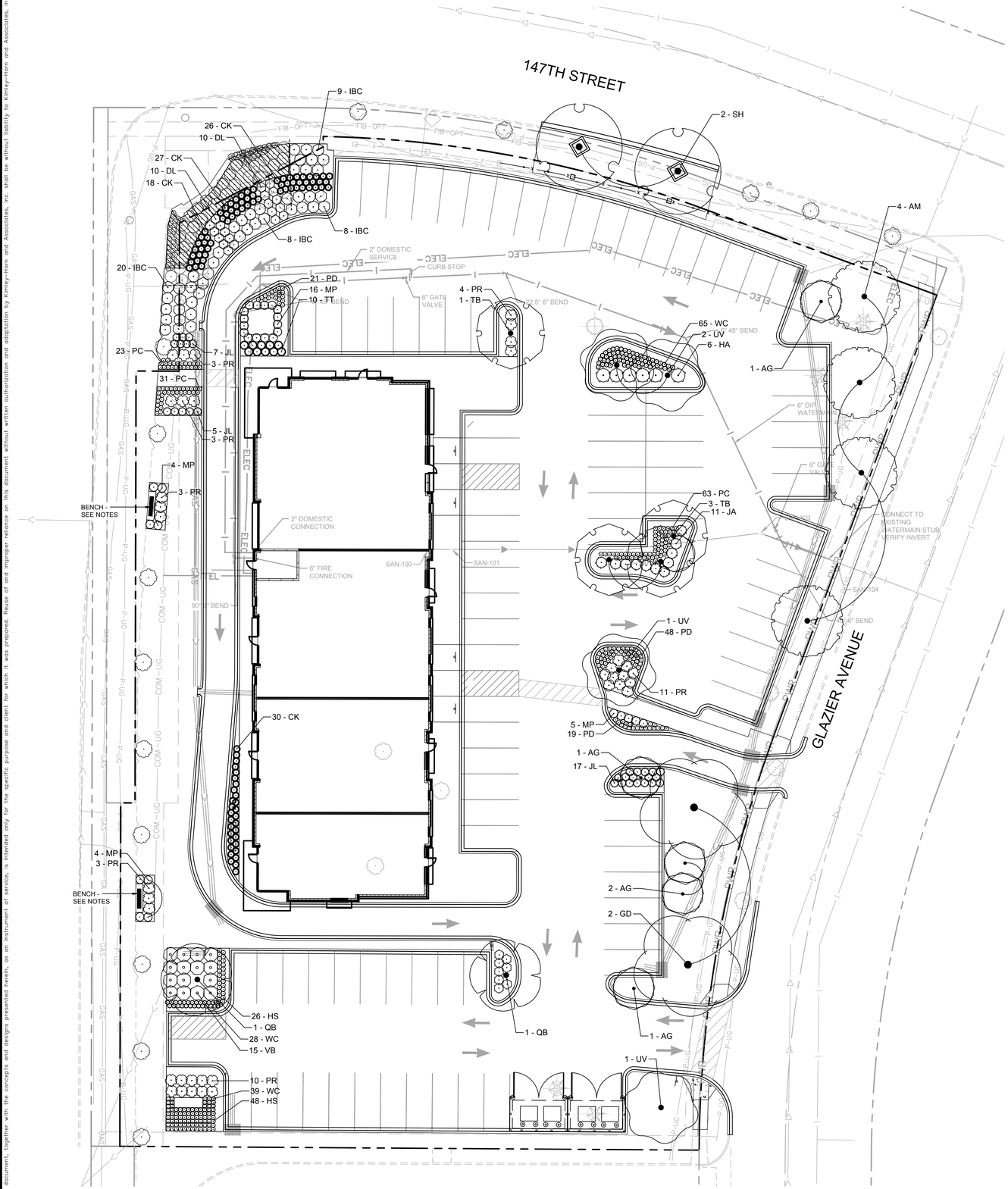
KHA PROJECT	160734008.1.130
DATE	05/09/2018
SCALE	AS SHOWN
DESIGNED BY	B.J.E.W
DRAWN BY	B.J.E.W, AB
CHECKED BY	WM, BW

UTILITY PLAN

LAUNCH PROPERTIES
APPLE VALLEY, MN

SHEET NUMBER
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LANDSCAPE REQUIREMENTS

CODE	REQUIRED	PROPOSED
155.39 A: A LANDSCAPE YARD SHALL BE INSTALLED AND MAINTAINED ALONG ALL PUBLIC STREETS. THIS YARD SHALL BE FIVE FEET IN DEPTH FROM THE PUBLIC RIGHT OF WAY FOR ALL PROPERTIES ABUTTING CEDAR AVENUE SOUTH OF 140TH STREET. THIS YARD SHALL BE 15 FEET IN DEPTH ALONG ALL OTHER STREETS, MEASURED FROM THE PUBLIC RIGHT OF WAY.	--	SEE PLAN
155.39 B: THE MINIMUM COST OF LANDSCAPING MATERIALS FOR THE PLAN SHALL BE A PERCENTAGE OF ESTIMATED BUILDING CONSTRUCTION COST - 2.5% FOR COMMERCIAL AREAS.	$44,955	$45,272
155.39 D: LANDSCAPED ISLANDS SHALL BE PROVIDED IN PARKING LOTS CONTAINING MORE THAN 25 PARKING STALLS. TOTAL AREA OF ISLANDS SHALL BE AT LEAST 2% OF THE PARKING LOT AREA. NO ISLAND SHALL BE LESS THAN THE SIZE OF A STANDARD PARKING STALL.	671 SF	912 SF
155.39 D: ISLANDS SHALL BE PLANTED WITH A MINIMUM 2.5 INCH DIAMETER TREE AT THE RATE OF ONE TREE PER 150 SQUARE FEET OF ISLAND AREA.	6	6

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL
AG	5	AMELANCHIER X GRANDIFLORA `AUTUMN BRILLIANCE`	`AUTUMN BRILLIANCE` SERVICEBERRY	B & B	1.5" CAL
AM	4	ACER MIYABEI `MORTON` TM	STATE STREETI MAPLE	B & B	2.5" CAL.
GD	2	GYMNOCLADUS DIOICA `ESPRESSO`	KENTUCKY COFFEETREE	B & B	2.5" CAL.
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK	B & B	2.5" CAL.
SH	2	GLEDITSIA TRIACANTHOS VAR. INERMIS `SKYCOLE`	SKYLINE HONEYLOCUST	B & B	2.5" CAL.
TB	4	TILIA AMERICANA `BOULEVARD`	BOULEVARD LINDEN	B & B	2.5" CAL.
UV	4	ULMUS AMERICANA `VALLEY FORGE`	AMERICAN ELM	B & B	2.5" CAL.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
DL	28	DIERVILLA LONICERA	DWARF BUSH HONEYSUCKLE	#5 CONT.	42" O.C.
HA	6	HYDRANGEA ARBORESCENS `ANNABELLE`	ANNABELLE SMOOTH HYDRANGEA	#5 CONT.	48" OC
IBC	45	ARONIA MELANOCARPA `MORTON`	IROQUIS BEAUTY BLACK CHOKEBERRY	#10 CONT.	48" OC
JA	11	JUNIPERUS COMMUNIS DEPRESSA `AMIDAK`	BLUEBERRY DELIGHT JUNIPER	#5 CONT.	48" OC
JL	29	JUNIPERUS HORIZONTALIS `LIMEGLOW`	LIMEGLOW JUNIPER	#2 CONT.	36" OC
PR	37	ROSA RUGOSA `FOXI PAVEMENT`	FOXI PAVEMENT ROSE	#5 CONT.	48" OC
TT	10	TAXUS X MEDIA `TAUNTONII`	TAUTON YEW	#5 CONT.	36" OC
VB	15	VIBURNUM TRILOBUM `BAILEY COMPACT`	BAILEY`S COMPACT AMERICAN CRANBERRY BUSH	#3 CONT.	
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
CK	95	CALAMAGROSTIS ACUTIFLORA KARL FOERSTER	KARL FOERSTER GRASS	#1 CONT.	30" OC
HS	74	HEMEROCALLIS X `STELLA SUPREME`	STELLA SUPREME DAYLILY	#1 CONT.	18" OC
MP	29	MISCANTHUS SINENSIS `PURPURESCENS`	FLAME GRASS	#1 CONT.	36" OC
PC	117	ECHINACEA PURPUREA	PURPLE CONEFLOWER	#1 CONT.	18" OC
PD	88	HEMEROCALLIS X `PURPLE D` ORO`	PURPLE D` ORO DAYLILY	#1 CONT.	18" OC
WC	132	NEPETA X FAASSENII `WALKERS LOW`	WALKERS LOW CATMINT	#1 CONT.	18" OC

LANDSCAPE NOTES

1. PLANT MATERIAL SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1. UNLESS NOTED OTHERWISE, DECIDUOUS SHRUBS SHALL HAVE AT LEAST 5 CANES AT THE SPECIFIED HEIGHT. ORNAMENTAL TREES SHALL HAVE NO 'V' CROTCHES AND SHALL BEGIN BRANCHING NO LOWER THAN 3' ABOVE THE ROOT BALL. STREET AND BOULEVARD TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACE.
2. INSTALL PLANT MATERIAL ONCE FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
3. INSTALL PLANT MATERIALS PER PLANTING DETAILS.
4. SUBSTITUTION REQUESTS FOR PLANT MATERIAL TYPE & SIZE SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR CONSIDERATION PRIOR TO BIDDING. ALL SUBSTITUTIONS AFTER BIDDING MUST BE APPROVED BY LANDSCAPE ARCHITECT AND ARE SUBJECT TO CONTRACT ADJUSTMENTS.
5. ADJUSTMENTS IN LOCATION OF PROPOSED PLANT MATERIALS MAY BE NEEDED IN FIELD. LANDSCAPE ARCHITECT MUST BE NOTIFIED PRIOR TO ADJUSTMENT OF PLANTS.
6. FERTILIZE PLAN MATERIAL UPON INSTALLATION WITH DRIED BONE MEAL, OTHER APPROVED FERTILIZER MIXED IN WITH THE PLANTING SOIL PER THE MANUFACTURER'S INSTRUCTIONS OR MAY BE TREATED FOR SUMMER AND FALL INSTALLATION WITH AN APPLICATION OF GRANULAR 10-0-5 OF 12 OZ. PER 2.5" CALIPER TREE AND 6 OZ. PER SHRUB WITH AND ADDITIONAL APPLICATION OF 10-0-10 THE FOLLOWING SPRING IN THE TREE SAUCER.
7. INSTALL 18" DEPTH OF PLANTING SOIL IN AREAS RECEIVING GROUND COVER, SHRUBS, & PERENNIALS, UNLESS OTHERWISE NOTED.
8. TREE WRAPPING SHALL OCCUR IN THE FALL ON OCTOBER 15 AND REMOVE WRAPPING AFTER APRIL 15.
9. APPLY PRE-EMERGENT HERBICIDE PREEN (OR APPROVED EQUAL) IN ANNUAL, PERENNIAL, AND SHRUB BEDS FOLLOWED BY SHREDDED HARDWOOD MULCH. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING USE OF HERBICIDES.
10. INSTALL 4" DEEP DOUBLE SHREDDED HARDWOOD BARK MULCH RINGS AT CONIFEROUS & DECIDUOUS TREES WITH NO MULCH IN DIRECT CONTACT WITH TREE TRUNK.
11. INSTALL 4" DEEP DOUBLE SHREDDED HARDWOOD BARK MULCH RINGS AT SHRUB PLANTING AREAS WITH NO MULCH IN DIRECT CONTRACT WITH SHRUB STEMS.
12. INSTALL 4" DEEP DOUBLE SHREDDED HARDWOOD BARK MULCH IN PERENNIAL PLANTING BEDS. REMOVE ALL MULCH FROM STEMS OF PERENNIALS - PLANT STEMS SHOULD NOT BE IN DIRECT CONTACT WITH MULCH.
13. ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN PLANTING AREAS.
14. WARRANTY NEW PLANT MATERIAL THROUGH ONE CALENDAR YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED.
15. INSTALL STEEL EDGER (COLOR: BLACK) ANYWHERE PLANTING BED ABUTS SODDED OR SEEDED AREAS.
16. ALL DISTURBED PERVIOUS AREAS NOT SHOWN AS PLANTING BEDS OR STORMWATER SEED MIX SHALL BE SODDED. CONTRACTOR RESPONSIBLE TO REPLACE IN KIND ANY DISTURBED LANDSCAPE NOT SHOWN ON THIS PLAN.
17. CONCRETE PAD 2.5' IN WIDTH AND APPROXIMATELY 10' IN LENGTH. ALIGN WITH ADJACENT TAN CONCRETE BANDING. SURFACE MOUNT LANDSCAPE FORMS TOWNE SQUARE BENCH (72" LONG, SILVER POWDERCOAT FINISH TO MATCH EXISTING CEDAR AVENUE BENCHES) PER MANUFACTURER'S INSTRUCTIONS.

LEGEND

- SOD - 9,709 SF
- EXISTING LANDSCAPE BED - PROTECT IN PLACE
- EXISTING TREE - PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

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CHAD E. FEIGUM
DATE: 05/08/2018 LIC. NO. 46508 MN

KHA PROJECT 160734008.1130
DATE 05/16/2017
SCALE AS SHOWN
DESIGNED BY KEB
DRAWN BY KEB
CHECKED BY CEF

LANDSCAPE PLAN

LAUNCH PROPERTIES
APPLE VALLEY, MN

SHEET NUMBER
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