PROPOSED RETAIL DEVELOPMENT
HURD REALTY

WAUKEE, IOWA

PLANS FOR:

PERMIT

ISG PROJECT # 18-22306

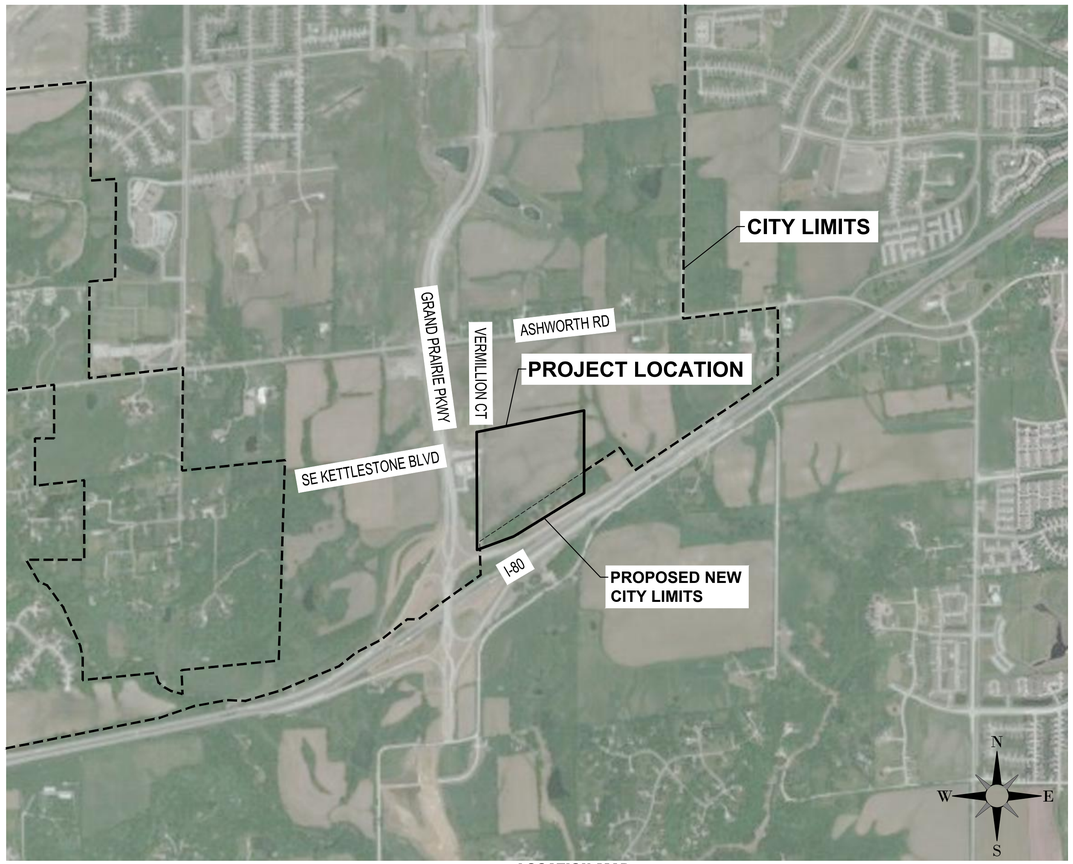
LEGEND

EXISTING

- CITY LIMITS
- SECTION LINE
- QUARTER SECTION LINE
- RIGHT OF WAY LINE
- PROPERTY / LOTLINE
- EASEMENT LINE
- ACCESS CONTROL
- WATER EDGE
- WETLAND BOUNDARY
- WETLAND / MARSH
- FENCE LINE
- CULVERT
- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER FORCEMAIN
- WATER
- GAS
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND TV
- OVERHEAD UTILITY
- UNDERGROUND UTILITY
- UNDERGROUND FIBER OPTIC
- CONTOUR (MAJOR)
- CONTOUR (MINOR)
- DECIDUOUS TREE
- CONIFEROUS TREE
- TREE LINE
- MANHOLE/STRUCTURE
- CATCH BASIN
- HYDRANT
- VALVE
- CURB STOP
- POWER POLE
- UTILITY PEDESTAL / CABINET

PROPOSED

- LOT LINE
- RIGHT OF WAY
- EASEMENT
- CULVERT
- STORM SEWER
- SANITARY SEWER
- WATER
- GAS
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- UNDERGROUND TV
- CONTOUR
- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- HYDRANT
- VALVE



LOCATION MAP

SCALE IN FEET

0 1000 2000

SITE SUMMARY

EXISTING ZONING:	AGRICULTURAL DISTRICT (A-1)
PROPOSED ZONING:	KETTLESTONE REGIONAL RETAIL (KRR)
PROPERTY AREA:	1,597,345 SQ. FT / 36.67 AC.
PROJECT AREA:	1,522,218 SQ. FT / 34.95 AC.
IMPERVIOUS AREA:	1,178,298 SQ. FT / 27.05 AC.
PERVIOUS AREA:	343,920 SQ. FT / 7.90 AC.

CONSTRUCTION TYPES

MAIN BUILDING = 32' TALL PRECAST CONCRETE PANEL AND METAL ROOF
C-STORE = 18' TALL PRECAST CONCRETE PANEL AND METAL ROOF

OPEN SPACE REQUIREMENTS

PROPERTY AREA:	964,817 SQ. FT / 22.15 AC.
OPEN SPACE AREA:	252,587 SQ. FT / 5.80 AC.
OPEN SPACE REQUIRED:	20.00 %
OPEN SPACE PROVIDED:	26.18 %

NOTE: PROPERTY AREA FOR OPEN SPACE IS THE TOTAL OF LOT 1 AND OUTLOT E WHICH ARE UTILIZED FOR THE FLEET FARM DEVELOPMENT.

PARKING REQUIREMENTS (PER CITY CODE)

TYPE	UNIT / AREA	STALLS REQUIRED	STALLS PROVIDED
RETAIL (4 STALLS / 1,000 SF)	161,000	644	646
CAR WASH (2 STALLS / 1,000 SF)	2,537	5	5
C-STORE (5 STALLS / 1,000 SF)	4,295	21	33 (16 PUMP STALLS)
	TOTAL:	**671**	**684**
ADA STALLS MAIN BUILDING	2% OF TOTAL	13	14
ADA STALLS FOR C-STORE	26-50 STALLS	2	2

SETBACKS

	PARKING	BUILDING
FRONT YARD		0'-0"
SIDE YARD		0'-0"
REAR YARD		0'-0"

PROJECT GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL (WHICH INCLUDES GENERAL SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS), DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS AND CLARIFICATIONS ISSUED BY THE ARCHITECT/ENGINEER.
2. CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK.
3. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
5. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ENGINEER BEFORE PROCEEDING WITH THE WORK.
6. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ENGINEER BEFORE PROCEEDING WITH THE WORK.
7. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.
8. THE LOCATION AND TYPE OF ALL INPLACE UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY AND ARE ACCURATE AND COMPLETE TO THE BEST OF THE KNOWLEDGE OF I & S GROUP, INC. (ISG). NO WARRANTY OR GUARANTEE IS IMPLIED. THE CONTRACTOR SHALL VERIFY THE SIZES, LOCATIONS AND ELEVATIONS OF ALL INPLACE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
9. THE CONTRACTOR IS TO CONTACT "IOWA ONE CALL" FOR UTILITY LOCATIONS, MINIMUM 2 BUSINESS DAYS PRIOR TO ANY EXCAVATION / CONSTRUCTION (1-800-292-8989).

SEAL

LICENSED PROFESSIONAL ENGINEER
DEREK JOHNSON 20894
IOWA

I hereby certify that this engineering document was prepared by me or under direct personal supervision and that i am a duly licensed Professional Engineer under the laws of the State of Iowa.

(signature) (date)

Printed or typed name DEREK JOHNSON

License number 20894

My license renewal date is December 31, 12/31/2019

Pages or sheets covered by this seal:
C0-10 - C6-20

ALL INFORMATION DEPICTED IN THE RECORD DRAWINGS IS FROM SA-BUILT SURVEYS PREPARED BY MCANINCH CORPORATION. TOPOGRAPHY WORK WAS ORIGINALLY COMPLETED ON FEBRUARY 27, 2020. ADDITIONAL TOPOGRAPHY HAS BEEN OBTAINED AS OF AUGUST 11, 2020.

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
03/26/19	REVISED PER CITY REVIEW #4 & CCD #1-C	AJR
04/12/19	REVISED PER CITY REVIEW #5	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS
05/29/19	CCD #4-C	JMF
06/06/19	REVISION PER DNR	BLF
07/17/19	CCD #5-C	JMF
08/07/19	CCD #6-C	WMS
09/04/19	CCD #7-C	LFO
10/09/19	CCD #8-C	PJJ
10/16/19	CCD #9-C	WMS

PROJECT NO.	18-22306
FILE NAME	22306 TITLE
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

TITLE SHEET

SHEET

C0-10

PROJECT INDEX:

OWNER:

TOM CARRICO
FLEET FARM VICE PRESIDENT
1300 S LYNNDALE DR
APPLETON, WI 54914
920-997-1429

PROJECT ADDRESS:
MAIN BUILDING
1300 SE KETTLESTONE BLVD

C-STORE
1240 SE KETTLESTONE BLVD

LOT 1 OF THE
HURD KETTLESTONE PLAT

WAUKEE, DALLAS COUNTY, IOWA

MANAGING OFFICE:

DES MOINES OFFICE
508 EAST LOCUST STREET
DES MOINES, IA 50309
PHONE: 515.243.9143

PROJECT MANAGER: DEREK JOHNSON
EMAIL: DEREK.JOHNSON@IS-GRP.COM

SPECIFICATIONS REFERENCE

ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF WAUKEE STANDARD SPECIFICATION FOR PUBLIC IMPROVEMENTS AND WITH THE 2019 EDITION OF THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) FOR PUBLIC IMPROVEMENTS, UNLESS DIRECTED OTHERWISE.

PROJECT DATUM

HORIZONTAL COORDINATES HAVE BEEN REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), ZONE 8, ON THE IOWA REGIONAL COORDINATE SYSTEM, IN U.S. SURVEY FEET. ELEVATIONS HAVE BEEN REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). RTK GPS METHODS WERE USED TO ESTABLISH HORIZONTAL AND VERTICAL COORDINATES FOR THIS PROJECT.

B.M. ELEVATION=1017.01
TOP NUT HYDRANT LOCATED ALONG THE WEST PROPERTY LINE OF PACEL 18-116 700' SOUTH OF KETTLESTONE BLVD

TOPOGRAPHIC SURVEY

THIS PROJECT'S TOPOGRAPHIC SURVEY CONSISTS OF DATA COLLECTED IN OCTOBER / 2018 BY ISG.

RECORD DRAWINGS - 2020-08-13

CONSTRUCTION NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
2. ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS. WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL (WHICH INCLUDES GENERAL SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS), DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS AND CLARIFICATIONS ISSUED BY THE ARCHITECT / ENGINEER.
3. CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK.
4. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPANSE.
5. THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND 2019 EDITION OF THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) SHALL APPLY TO CONSTRUCTION WORK ON THE PROJECT. A FULL IOWA SUDAS SPECIFICATIONS MANUAL CAN BE FOUND ONLINE FOR FREE AT WWW.IOWASUDAS.COM.
6. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ARCHITECT / ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
7. THE WORK TO BE ACCOMPLISHED FOR THE CONSTRUCTION OF THIS PROJECT WILL OCCUR ON OWNER'S PROPERTY. THE CONTRACTOR SHOULD CONFINE OPERATIONS, PEOPLE, AND EQUIPMENT TO THE OWNER'S PROPERTY.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIALS NOT TO BE INCORPORATED IN THE WORK INVOLVED IN THE PROJECT (UNSUITABLE EXCAVATION, WASTE PIPE, ETC.).
9. PUBLIC UTILITY FIXTURES ARE EXISTING WITHIN THE CONSTRUCTION AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THESE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR ANY NECESSARY MODIFICATION OF SERVICES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING AND PREPARING AREAS DISTURBED BY CONTRACTOR'S OPERATIONS FOR SEEDING. ALL DEBRIS GREATER THAN GOLF BALL SIZE SHALL BE REMOVED AND AREA SHALL BE RAKED SMOOTH. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE OWNER'S PROPERTY DURING OPERATIONS AND SHALL MAKE A REASONABLE EFFORT TO NOT DISTURB AREAS GREATER THEN NECESSARY DURING CONSTRUCTION. AREAS OF NONGERMINATION WILL BE RESEEDED AND REFERTILIZED BY THE CONTRACTOR. COST IS TO BE CONSIDERED INCIDENTAL.
11. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL NECESSARY TRAFFIC CONTROL SIGNS, DEVICES, ETC., AND TO PLACE, MAINTAIN, AND REMOVE SAME AS CONSTRUCTION COMMENCES AND IS COMPLETED IN ACCORDANCE WITH THE CURRENT EDITION OF THE IOWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS. FAILURE TO COMPLY WITH THIS PORTION OF THE SPECIFICATIONS WILL RESULT IN SUSPENSION OF WORK UNTIL. THE SITUATION IS CORRECTED. A REDUCTION IN THE LUMP SUM TO BE PAID WILL BE MADE FOR EXCESSIVE NONCOMPLIANCE WITH REQUIRED TRAFFIC CONTROL. NO WORK SHALL COMMENCE IN ANY GIVEN AREA UNTIL ALL APPROPRIATE TRAFFIC CONTROL IS IN PLACE.
12. THE CONTRACTOR SHALL NOT DISTURB GRASSED AREAS AND TREES OUTSIDE THE CONSTRUCTION LIMITS. TREES AND BUSHES SHALL BE RETAINED AS POSSIBLE. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREA(S) WILL BE SUBJECT TO APPROVAL OF THE ENGINEER.
13. ALL EXISTING TREES AND BUSHES SHALL BE MAINTAINED AND PROTECTED UNLESS NOTED OTHERWISE. AREAS OF HAND FORMING MAY BE REQUIRED TO PROTECT TRESS.
14. THE CONSTRUCTION OPERATIONS ARE TO TAKE PLACE IN A RESIDENTIAL AREA. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS INCLUDED IN THE SPECIFICATIONS IN REGARD TO POSITIVE DUST CONTROL DURING ALL OPERATIONS TO INCLUDE REMOVAL, CLEAN UP, ETC.
15. CONTRACTOR SHALL PROVIDE BARRICADES AND SIGNS IDENTIFYING VEHICLES AND OBSTACLES IN THE DRIVEN ROADWAYS.
16. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS, NOTIFY ARCHITECT / ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRED INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
17. EXISTING STORM SEWERS, SANITARY SEWERS, AND WATER MAINS ARE LOCATED BASED ON CITY RECORDS AND ACTUAL LOCATIONS MAY VARY GREATLY FROM THAT SHOWN. THE LOCATIONS AND TYPE OF ALL INPLACE UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY AND ARE ACCURATE AND COMPLETE TO THE BEST OF THE KNOWLEDGE OF ISG. NO WARRANTY OR GUARANTEE IS IMPLIED. THE CONTRACTOR SHALL VERIFY THE SIZES, LOCATIONS, AND ELEVATIONS OF ALL INPLACE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
18. CONTRACTOR SHALL REPLACE AND REPAIR ALL EXISTING STORM SEWERS THAT ARE ENCOUNTERED DURING CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATION. CONTRACTOR SHALL USE 2000D RCP WITH FLEXIBLE O-RING GASKET JOINTS, PLACE PIPES SO JOINTS ARE NOT DIRECTLY OVER WATER MAIN, AND RECONNECT TO EXISTING STORM SEWER WITH REINFORCED FERNCO COUPLING.
19. PROPOSED WATER DISTRIBUTION LINE SHALL BE INSTALLED WITH A MINIMUM OF FIVE AND ONE-HALF (5.5') OF COVER. IN LOCATIONS WITH A SEPARATION DISTANCE OF LESS THAN TEN FEET (10') FROM SANITARY SEWER OR STORM SEWER, THE SANITARY SEWER OR STORM SEWER SHALL BE INSTALLED EIGHTEEN INCHES (18") BELOW THE BOTTOM OF THE WATER MAIN AND SHALL BE PLACED IN A SEPARATE TRENCH AT A MINIMUM HORIZONTAL SEPARATION OF THREE FEET PER SUDAS SPECIFICATIONS.
20. AT ALL SANITARY SEWER AND WATER MAIN CROSSOVER, MAINTAIN A MINIMUM OF 18" SEPARATION BETWEEN BOTTOM OF WATER MAIN AND TOP OF SEWER. PLACE ONE FULL LENGTH OF WATER PIPE, LOCATED SO BOTH JOINTS ARE AS FAR AS POSSIBLE FROM SEWER. USE LOW PERMEABILITY SOIL FOR BACKFILL WITHIN 10' OF CROSSOVER.
21. THRUST BLOCKS SHALL BE POURED CONCRETE, INSTALLED BEHIND ALL BENDS, TEES AND DEAD ENDS IN ACCORDANCE WITH SPECIFICATIONS.
22. GRANULAR BEDDING IS REQUIRED FOR ANY TYPE OF PIPE USED AND SHALL BE AS SPECIFIED.
23. A NEAT VERTICAL EDGE WILL BE REQUIRED FOR ALL JOINTS BETWEEN THE NEW PAVEMENT SURFACE AND EXISTING PAVING AS SHOWN IN THE PLANS. SAW CUTTING OR OTHER TECHNIQUES MAY BE USED TO PROVIDE THIS EDGE. COST OF THE SAW CUT IS TO BE CONSIDERED INCIDENTAL. ADDITIONAL REMOVAL AND REPLACEMENT DUE TO THE CONTRACTOR'S OPERATION WILL BE MEASURED SEPARATELY BUT WILL BE THE CONTRACTOR'S RESPONSIBILITY.
24. ANY DEWATERING NECESSARY FOR CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO INDIVIDUAL CONSTRUCTION ITEM. PLEASE REFER TO SUBSURFACE EXPLORATION REPORT FOR ANTICIPATED SITE CONDITIONS. REPORT IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT GUARANTEE CONDITIONS TO BE EXPERIENCED.
25. THE CONTRACTOR SHALL INSPECT AND VERIFY SOIL CONDITIONS AS NECESSARY IN ORDER TO DETERMINE THE TYPE OF CONSTRUCTION TO EMPLOY. NATURAL AND/OR MANMADE OBSTRUCTIONS MAY BE ENCOUNTERED IN THE SOIL. THESE CONTRACT DOCUMENTS DO NOT WARRANT THE NATURE OR CONDITIONS OF THE SOILS, AND DO NOT WARRANT THAT NATURAL OR MANMADE OBSTRUCTIONS WILL NOT BE ENCOUNTERED, NOR GUARANTEE THE EXTENT TO WHICH ROCKS, BOULDERS, OR OTHER OBSTRUCTIONS, REGARDLESS OF SIZE, MAY BE ENCOUNTERED DURING BORING OPERATIONS. THE CONTRACTOR SHALL NOT BE ENTITLED TO ADDITIONAL COMPENSATION FOR ANY NATURAL OR MANMADE OBSTRUCTIONS ENCOUNTERED DURING TRENCHLESS CONSTRUCTION.
26. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ARCHITECT / ENGINEER BEFORE PROCEEDING WITH THE WORK.
27. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED, AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ARCHITECT / ENGINEER BEFORE PROCEEDING WITH THE WORK.
28. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.
29. THE LOCATION AND TYPE OF ALL INPLACE UTILITIES SHOWN ON THE PLANS ARE ACCURATE AND COMPLETE TO THE BEST OF THE KNOWLEDGE OF ISG. NO WARRANTY OR GUARANTEE IS IMPLIED. THE CONTRACTOR SHALL VERIFY THE SIZES, LOCATIONS AND ELEVATIONS OF ALL INPLACE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES OF VARIATIONS FROM PLAN.
30. THIS SITE WILL HAVE SAWCUTTING AND/OR CONCRETE GRINDING, SO PROTECTION OF STORM SEWERS AND DRAINAGE WAYS WILL NEED TO BE PROTECTED FROM SLURRY FROM THE CONCRETE OPERATION TO DISCHARGE OFFSITE.
31. THE CONTRACTOR IS TO CONTACT "IOWA ONE CALL" FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO EXCAVATION / CONSTRUCTIONS (1-800-292-8989).
32. ANY PROPOSED CHANGES TO THE PLAN SET SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.
33. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.
34. ALL FIRE HYDRANTS ARE TO HAVE 4" STORZ FITTINGS.
35. ALL UTILITIES ARE TO BE CONSTRUCTED TO THE CITY OF WAUKEE STANDARDS.
36. ALL UTILITIES ARE TO BE TESTED TO CITY OF WAUKEE STANDARDS, AND THE CITY IS TO WITNESS ALL TESTING.
37. COORDINATE ALL TIE-INS TO EXISTING UTILITIES WITH CITY OF WAUKEE PUBLIC WORKS DEPARTMENT.
38. APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED AS SOON AS CONSTRUCTION COMMENCES. THE FIRE APPARATUS ROAD SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 503.2 AND SHALL EXTEND TO WITHIN 100-FEET OF THE EXTERIOR WALLS OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING.

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
06/06/19	REVISED PER DNR	BLF

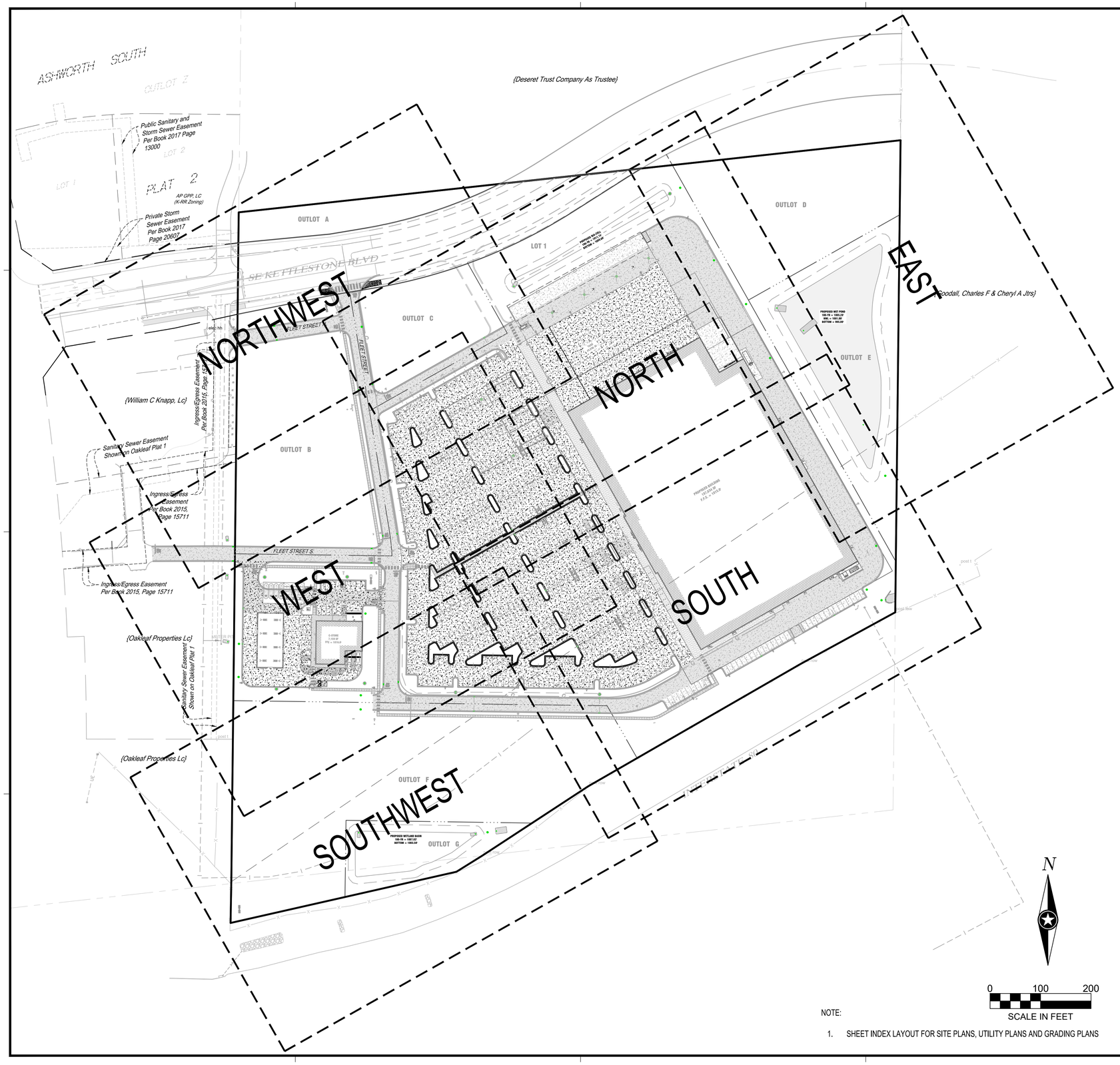
PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

CONSTRUCTION NOTES

SHEET

C0-11



NOTE:

1. SHEET INDEX LAYOUT FOR SITE PLANS, UTILITY PLANS AND GRADING PLANS

CIVIL SHEET LIST

C0-10	TITLE SHEET
C0-11	CONSTRUCTION NOTES
C0-20	SHEET INDEX
C0-21	UTILITY SCHEDULES
C0-30	SITE DETAILS
C0-31	SITE DETAILS
C0-32	SITE DETAILS
C0-33	SITE DETAILS
C0-34	SITE DETAILS
C0-35	SITE DETAILS
C0-36	SITE DETAILS
C1-10	PRE-CONSTRUCTION SWPPP
C1-20	PROPOSED SWPPP
C1-30	SWPPP GENERAL INFORMATION AND NOTES
C1-31	SWPPP DETAILS
C1-32	SWPPP DETAILS
C2-10	EXISTING SITE AND REMOVALS
C3-10	SITE PLAN (OVERALL)
C3-11	SITE PLAN (NORTHWEST)
C3-12	SITE PLAN (WEST)
C3-13	SITE PLAN (SOUTHWEST)
C3-14	SITE PLAN (NORTH)
C3-15	SITE PLAN (SOUTH)
C3-16	SITE PLAN (EAST)
C3-20	SITE UTILITY PLAN (OVERALL)
C3-21	SITE UTILITY PLAN (NORTHWEST)
C3-22	SITE UTILITY PLAN (WEST)
C3-23	SITE UTILITY PLAN (SOUTHWEST)
C3-24	SITE UTILITY PLAN (NORTH)
C3-25	SITE UTILITY PLAN (SOUTH)
C3-26	SITE UTILITY PLAN (EAST)
C3-30	SANITARY PROFILES
C3-31	SANITARY PROFILES
C3-32	SANITARY PROFILES
C3-33	SANITARY PROFILES
C3-34	SANITARY PROFILES
C3-40	WATERMAIN PROFILES
C3-41	WATERMAIN PROFILES
C3-42	WATERMAIN PROFILES
C3-43	WATERMAIN PROFILES
C3-50	STORM SEWER PROFILES
C3-51	STORM SEWER PROFILES
C3-52	STORM SEWER PROFILES
C3-53	STORM SEWER PROFILES
C3-54	STORM SEWER PROFILES
C3-55	STORM SEWER PROFILES
C3-56	STORM SEWER PROFILES
C3-60	HYDRANT COVERAGE PLAN
C4-10	OVERALL GRADING PLAN
C4-20	DETAILED GRADING PLAN (NORTHWEST)
C4-21	DETAILED GRADING PLAN (WEST)
C4-22	DETAILED GRADING PLAN (SOUTHWEST)
C4-23	DETAILED GRADING PLAN (NORTH)
C4-24	DETAILED GRADING PLAN (SOUTH)
C4-25	DETAILED GRADING PLAN (EAST)
C4-26	DETAILED GRADING INTERSECTIONS
C4-27	DETAILED GRADING INTERSECTIONS
C4-28	DETAILED GRADING INTERSECTIONS
C4-29	DETAILED GRADING INTERSECTIONS
C5-10	OVERALL SITE RESTORATION + PLANTING PLAN
C5-11	PLANTING PLAN (NORTH)
C5-12	PLANTING PLAN (EAST)
C5-13	PLANTING PLAN (WEST)
C5-14	PLANTING PLAN (POLE BARN)
C5-15	PLANTING PLAN (EAST BUFFER)
C5-16	PLANTING PLAN (SOUTHEAST)
C5-17	PLANTING PLAN (NORTHWEST)
C5-18	PLANTING NOTES + DETAILS
C5-19	PLANT + SITE MATERIALS SCHEDULES
C6-10	SITE LIGHTING PLAN
C6-20	LIGHTING CUT SHEETS

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 SHEET INDEX
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SHEET INDEX

SHEET

C0-20

STORM DRAIN SCHEDULE

STRUCTURE NO.	STRUCTURE TYPE	STRUCTURE SIZE (In)	STRUCTURE MATERIAL	CASTING	PAY HEIGHT LN FT	* TOP OF CASTING ELEVATION	INVERT ELEVATION	OUTLET PIPE
A-1	SW-401	96 Ø	RC	SW-602 TYPE E	16.12	~~1013.61~~	~~997.49~~	P-1
A-2	SW-401	72 Ø	RC	SW-602 TYPE E	12.53	~~1013.56~~	~~1001.03~~	P-2
A-3	SW-401	84 Ø	RC	SW-602 TYPE E	12.96	~~1014.41~~	~~1001.45~~	P-3
A-4	SW-401	72 Ø	RC	SW-603 TYPE R	11.51	~~1013.36~~	~~1001.85~~	P-4
A-5	SW-401	72 Ø	RC	SW-603 TYPE R	10.46	~~1013.34~~	~~1002.88~~	P-5
A-6 **	SW-401	84 Ø	RC	SW-604-TYPE 5	5.28	~~1010.00~~	~~1004.72~~	P-6
A-7	SW-401	60 Ø	RC	SW-603 TYPE R	6.54	~~1011.97~~	~~1005.43~~	P-7
A-8	SW-401	60 Ø	RC	SW-603 TYPE R	5.88	~~1012.15~~	~~1006.27~~	P-8
A-9	SW-401	60 Ø	RC	SW-603 TYPE R	5.25	~~1012.35~~	~~1007.10~~	P-9
A-10	SW-401	60 Ø	RC	SW-603 TYPE R	5.00	~~1012.35~~	~~1007.35~~	P-10
A-11	SW-401	60 Ø	RC	SW-604 TYPE 4B	4.34	~~1012.62~~	~~1008.28~~	P-11
A-12	SW-512	24 Ø	RC	SW-604 TYPE 4B	3.50	~~1012.62~~	~~1009.12~~	P-12
A-13	SW-501	36 x 24	RC	SW-603 TYPE R	6.66	~~1015.24~~	~~1008.58~~	P-13
A-14	SW-501	36 x 24	RC	SW-603 TYPE R	6.92	~~1015.74~~	~~1008.82~~	P-14
A-15	SW-401	48 Ø	RC	SW-603 TYPE R	6.32	~~1015.41~~	~~1009.09~~	P-15
A-16	SW-502	48 Ø	RC	SW-603 TYPE R	6.08	~~1015.41~~	~~1009.33~~	P-16
A-17 **	SW-401	48 Ø	RC	SW-604-TYPE 5	3.67	~~1013.38~~	~~1009.71~~	P-17
A-18 **	SW-401	48 Ø	RC	SW-604-TYPE 5	2.57	~~1013.20~~	~~1010.63~~	P-18
A-19	SW-501	36 x 24	RC	SW-603 TYPE R	3.04	~~1014.14~~	~~1011.10~~	P-19
A-20	SW-501	36 x 24	RC	SW-603 TYPE R	4.35	~~1017.19~~	~~1012.84~~	P-20
A-21	SW-501	36 x 24	RC	SW-603 TYPE R	4.00	~~1017.18~~	~~1013.18~~	P-21
A-22	SW-501	36 x 24	RC	SW-603 TYPE R	4.75	~~1011.46~~	~~1006.71~~	P-22
A-23	SW-501	36 x 24	RC	SW-603 TYPE R	3.48	~~1011.46~~	~~1007.98~~	P-23
A-24 **	SW-512	24 Ø	RC	SW-604-TYPE 5	3.26	~~1010.26~~	~~1007.00~~	P-24
A-26	SW-401	48 Ø	RC	SW-604 TYPE 4B	5.39	~~1011.59~~	~~1006.20~~	P-26
A-27	SW-401	48 Ø	RC	SW-604 TYPE 4B	6.03	~~1013.08~~	~~1007.05~~	P-27
A-28	SW-401	48 Ø	RC	SW-604 TYPE 4B	5.87	~~1013.48~~	~~1007.61~~	P-28
A-29	SW-401	48 Ø	RC	SW-604 TYPE 4B	5.62	~~1013.80~~	~~1008.18~~	P-29
A-29A	SW-512	24 Ø	RC	SW-604 TYPE 4B	5.56	~~1014.30~~	~~1008.75~~	P-29A
A-30	SW-401	48 Ø	RC	SW-603 TYPE R	4.50	~~1014.46~~	~~1009.96~~	P-30
A-31	SW-501	36 x 24	RC	SW-603 TYPE R	5.00	~~1019.80~~	~~1014.80~~	P-31
A-32	SW-501	36 x 24	RC	SW-603 TYPE R	4.56	~~1019.70~~	~~1015.14~~	P-32
A-33	SW-401	48 Ø	RC	SW-602 TYPE E	5.23	~~1020.84~~	~~1015.61~~	P-33
A-34	SW-501	36 x 24	RC	SW-603 TYPE R	3.71	~~1020.40~~	~~1016.69~~	P-34
A-35	SW-501	36 x 24	RC	SW-603 TYPE R	3.36	~~1020.40~~	~~1017.04~~	P-35
A-40	SW-401	60 Ø	RC	SW-604 TYPE 4B	10.72	~~1012.55~~	~~1001.83~~	P-40
A-41	SW-401	60 Ø	RC	SW-604 TYPE 4B	9.70	~~1014.02~~	~~1004.33~~	P-41
A-42 **	SW-401	48 Ø	RC	SEE DETAIL	5.19	~~1009.94~~	~~1004.75~~	P-42
A-51	SW-401	48 Ø	RC	SW-602 TYPE E	7.90	~~1012.61~~	~~1004.71~~	P-51
A-52	SW-401	60 Ø	RC	SW-602 TYPE E	4.83	~~1012.48~~	~~1007.65~~	P-52
A-53 **	SW-401	48 Ø	RC	SW-604-TYPE 5	4.28	~~1012.55~~	~~1008.27~~	P-53
A-53A	SW-512	24 Ø	RC	SW-604-TYPE 4B	6.09	~~1015.97~~	~~1009.88~~	P-53A
A-54	SW-501	36 x 24	RC	SW-603 TYPE R	4.09	~~1012.78~~	~~1008.69~~	P-54
A-55	SW-501	36 x 24	RC	SW-603 TYPE R	3.54	~~1012.57~~	~~1009.03~~	P-55
A-56 **	SW-401	48 Ø	RC	SW-604 TYPE 5	3.25	~~1013.05~~	~~1009.80~~	P-56
A-57	SW-501	36 x 24	RC	SW-603 TYPE R	2.66	~~1013.81~~	~~1011.15~~	P-57
A-58	SW-501	36 x 24	RC	SW-603 TYPE R	3.31	~~1011.13~~	~~1007.82~~	P-58
A-59	SW-501	36 x 24	RC	SW-603 TYPE R	2.97	~~1011.13~~	~~1008.16~~	P-59
A-61	SW-401	48 Ø	RC	SEE DETAIL	4.68	~~1008.03~~	~~1003.35~~	P-60
A-65	SW-401	60 Ø	RC	SW-602 TYPE E	5.07	~~1015.19~~	~~1010.12~~	P-65
A-66	SW-401	48 Ø	RC	SW-602 TYPE E	3.79	~~1014.63~~	~~1010.84~~	P-66
A-70	SW-401	96 Ø	RC	SW-602 TYPE E	8.62	~~1003.96~~	~~995.34~~	P-70
A-71	SW-401	72 Ø	RC	SEE DETAIL	9.00	~~1006.56~~	~~997.56~~	P-71

* FOR ALL STRUCTURES WITHIN CURB AND GUTTER TOP OF CASTING ELEVATION REFERS TO TOP BACK OF CURB AND NOT GUTTER LINE.

** DENOTES AN INLET STRUCTURE IN GRASSED AREA. REQUIRES RIP RAP PLACED AROUND INLET IN 3' DIAMETER.

SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE NO.	STRUCTURE TYPE	STRUCTURE SIZE (In)	STRUCTURE MATERIAL	CASTING	PAY HEIGHT LN FT	TOP OF CASTING ELEVATION	INVERT ELEVATION	PIPE NO.
S-1	SW-301	48 Ø	RC	SW-601 TYPE B	18.85	1019.02	~~1000.17~~	SP-1
S-2	SW-301	48 Ø	RC	SW-601 TYPE B	13.71	1015.10	~~1001.39~~	SP-2
S-3	SW-301	48 Ø	RC	SW-601 TYPE B	9.45	1012.15	~~1002.70~~	SP-3
S-4	SW-301	48 Ø	RC	SW-601 TYPE B	9.73	1013.07	~~1003.34~~	SP-4
S-5	SW-301	48 Ø	RC	SW-601 TYPE B	7.82	1011.59	~~1003.77~~	SP-5
S-6	SW-301	48 Ø	RC	SW-601 TYPE B	6.54	1012.16	~~1005.62~~	SP-6
S-7	SW-301	48 Ø	RC	SW-601 TYPE B	5.00	1014.07	~~1009.07~~	SP-7

SANITARY SEWER PIPE SCHEDULE

PIPE NO.	DRAIN FROM	INLET ELEVATION	DRAIN TO	OUTLET ELEVATION	PIPE SIZE	PIPE CLASS	PIPE GRADE	PIPE LENGTH (FT)
SP-1	S-1	~~1000.17~~	EX-STUB	~~999.22~~	8"	SDR-26	0.40%	239
SP-1A	PLUG	~~1000.50~~	SP-1	~~1000.00~~	6"	SDR-26	2.00%	25
SP-2	S-2	~~1001.39~~	S-1	~~1000.27~~	8"	SDR-26	0.40%	281
SP-2A	PLUG	~~1009.02~~	S-1	~~1008.17~~	6"	SDR-26	2.00%	43
SP-3	S-3	~~1002.70~~	S-2	~~1001.49~~	8"	SDR-26	0.40%	301
SP-4	S-4	~~1003.34~~	S-3	~~1002.92~~	8"	SDR-26	0.40%	106
SP-4A	BLDG	~~1003.91~~	S-4	~~1003.44~~	6"	SDR-26	1.10%	43
SP-4B	PLUG	~~1009.00~~	S-4	~~1006.04~~	6"	SDR-26	4.00%	74
SP-5	S-5	~~1003.77~~	S-3	~~1002.80~~	8"	SDR-26	0.40%	244
SP-5A	PLUG	~~1003.27~~	S-3	~~1002.90~~	6"	SDR-26	1.10%	43
SP-6	S-6	1005.62	S-5	~~1003.87~~	8"	SDR-26	0.72%	244
SP-7	S-7	~~1009.07~~	S-6	~~1007.12~~	6"	SDR-26	1.05%	187
SP-7A	BLDG	~~1009.54~~	S-7	~~1009.17~~	6"	SDR-26	1.05%	35

STORM DRAIN APRON SCHEDULE

APRON NO.	APRON SIZE (in)	APRON MATERIAL	INVERT ELEVATION	PIPE NO.	RIP RAP DIMENSIONS: LENGTH (ft)	WIDTH (ft)	DEPTH (in)	TONNAGE	REVETMENT STONE CLASS
FES-1	48	RC	~~998.50~~	P-1	30	12	18	28	CLASS E
FES-25A	15	RC	~~1013.85~~	P-25	10	5	18	4	CLASS E
FES-25B	15	RC	~~1013.49~~	P-25	10	5	18	4	CLASS E
FES-30	24	RC	~~1008.00~~	P-30	12	6	18	6	CLASS E
FES-40	30	RC	~~1001.00~~	P-40	20	12	18	6	CLASS E
FES-51	24	RC	~~1003.50~~	P-51	12	6	18	6	CLASS E
FES-60	24	RC	~~1003.31~~	P-60	20	12	18	18	CLASS E
FES-61	24	RC	~~1003.50~~	P-61A	12	6	18	6	CLASS E
FES-66	18	RC	~~1012.30~~	P-66A	12	6	18	6	CLASS E
FES-71	42	RC	~~995.00~~	P-71A	0	0	0	0	N / A
WALL	42	RC AND WALL	~~995.25~~	P-70	19	16	18	24	CLASS E
					30	4	18	10	CLASSE E
					30	4	18	10	CLASSE E

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
05/29/19	CCD #4-C	JMF
09/04/19	CCD #7-C	LFO

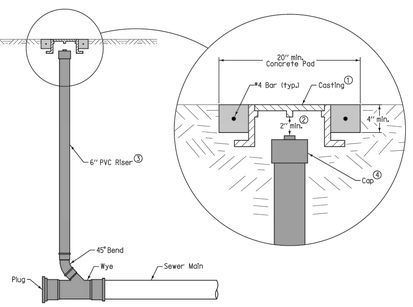
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

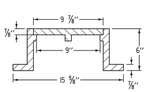
UTILITY SCHEDULES

SHEET

C0-21



CLEANOUT



CASTING ①
(Dimensions are nominal)

① Standard duty casting complying with AASHTO M 306. Mark lid with "Sanitary" or "Sanitary CO."

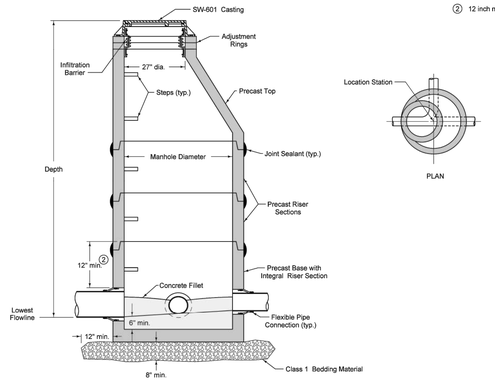
② Do not allow casting to bear on top of riser pipe.

③ 6-inch PVC Service Pipe

④ Threaded PVC cap or iron body ferrule with brass screw plug

SUDAS | Iowa Department of Transportation | REVISION: NEW 10-20-06
FIGURE 6010.203 | STANDARD ROAD PLAN | SW-203 | SHEET 1 of 1
REVISIONS: New.
Jeff Kothenbeutel, SUDAS Engineer | Deanna Maifield, Iowa DOT Engineer
SANITARY SEWER CLEANOUT

FIGURE 6010.203 SHEET 1 OF 1



TYPICAL SECTION

PLAN

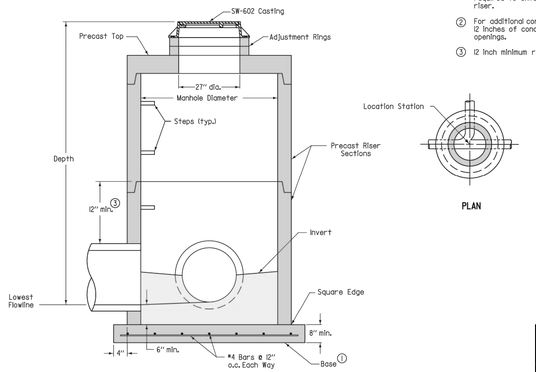
① For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.

② 12 inch minimum riser height above all pipe openings.

Manhole Diameter (inches)	Maximum Pipe Diameter ① (inches) for 2 Pipes	
	At 180° Separation	At 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

SUDAS | IOWA DOT | REVISION: 2 04-17-20
FIGURE 6010.301 | STANDARD ROAD PLAN | SW-301 | SHEET 1 of 1
REVISIONS: Changed "Insert" to "Concrete Filler".
Thad D. Wignall, SUDAS Engineer | Larson Smith, Iowa DOT Engineer
CIRCULAR SANITARY SEWER MANHOLE

FIGURE 6010.301 SHEET 1 OF 1



TYPICAL SECTION

PLAN

① Cast-in-place base shown. If base is precast integral with bottom riser, the footprint of the base is not required to extend beyond the outer edge of the riser.

② For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.

③ 12 inch minimum riser height above all pipe openings.

Manhole Diameter (inches)	Maximum Pipe Diameter ② (inches) for 2 Pipes	
	At 180° Separation	At 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

SUDAS | Iowa Department of Transportation | REVISION: NEW 04-21-20
FIGURE 6010.401 | STANDARD ROAD PLAN | SW-401 | SHEET 1 of 1
REVISIONS: New. Replaces SUDAS Type "R-1" Manhole, ALT replace 6P-50.
Jeff Kothenbeutel, SUDAS Engineer | Deanna Maifield, Iowa DOT Engineer
CIRCULAR STORM SEWER MANHOLE

FIGURE 6010.401 SHEET 1 OF 1

Refer to SW-514 for boxout details.

TYPICAL SECTION

PLAN

① SW-603 Type R unless Type Q is specified in the contract documents.

② Cast-in-place base shown. Base may be square. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.

③ For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.

④ 12 inch minimum riser height above all pipes.

Manhole Diameter (inches)	Maximum Pipe Diameter ③ (inches) for 2 Pipes	
	at 180° Separation	at 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

SUDAS | Iowa Department of Transportation | REVISION: 1 10-18-12
FIGURE 6010.502 | STANDARD ROAD PLAN | SW-502 | SHEET 1 of 1
REVISIONS: Added reference to SW-514.
Thad D. Wignall, SUDAS Engineer | Deanna Maifield, Iowa DOT Engineer
CIRCULAR SINGLE GRATE INTAKE

FIGURE 6010.502 SHEET 1 OF 2

TYPICAL SECTION

CASE 1

① Precast (shown) or cast-in-place base:

- Precast: 6 inch thick concrete with #6 welded wire mesh on 4 inch centers (WWF 4" x 4"). Center mesh vertically within base.
- Cast-in-place: 8 inch thick non-reinforced concrete.

② 12 inch minimum riser height above all pipes.

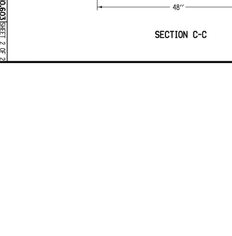
INTAKE SIZE - CASE 1	
Outlet Pipe Diameter, D1	Minimum Riser Diameter, D2
12"	18"
15"	24"
18"	24"
21"	30"
24"	30"
27"	36"

SUDAS | IOWA DOT | REVISION: 2 10-21-14
FIGURE 6010.512 | STANDARD ROAD PLAN | SW-512 | SHEET 1 of 2
REVISIONS: Added the Alternate per Area 3.
Thad D. Wignall, SUDAS Engineer | Larson Smith, Iowa DOT Engineer
CIRCULAR AREA INTAKE

FIGURE 6010.512 SHEET 1 OF 2

TYPE A
Two-piece fixed casting

TYPE C
Two-piece fixed casting with bolt-down cover ②

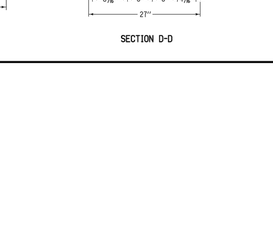


PLAN

TYPICAL SECTION

TYPE B
Three-piece floating casting

TYPE D
Three-piece floating casting with bolt-down cover ②



PLAN

TYPICAL SECTION

Frame Notes:
Size and spacing of lugs and flanges may vary.

Cover Notes:
Roughness pattern and text style may vary.
Minimum one concealed pickhole.

① When the contract documents require the frame to be attached to the structure, drill four $\frac{3}{4}$" diameter holes or slots, equally spaced around frame.

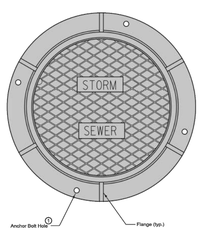
② If specified, furnish bolt down frame and cover with four $\frac{3}{4}$" x $2\frac{1}{2}$" stainless steel, hex head, recessed cap screws. Secure cover with screws, washers, and rubber gasket seals.

③ Set casting at proper grade using one of the adjustment slots. Remove bolts upon completion of paving.

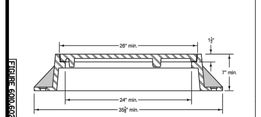
SUDAS | IOWA DOT | REVISION: 3 04-21-17
FIGURE 6010.601 | STANDARD ROAD PLAN | SW-601 | SHEET 1 of 1
REVISIONS: Minor revision to layout adjustability of TYPE B and TYPE D casting. Modified circle note 3.
Thad D. Wignall, SUDAS Engineer | Larson Smith, Iowa DOT Engineer
CASTINGS FOR SANITARY SEWER MANHOLES

FIGURE 6010.601 SHEET 1 OF 1

TYPE E
Two-piece fixed casting

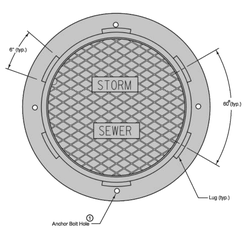


PLAN

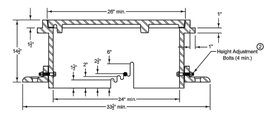


TYPICAL SECTION

TYPE F
Three-piece floating casting



PLAN



TYPICAL SECTION

Frame Notes:
Size and spacing of lugs and flanges may vary.

Cover Notes:
Roughness pattern and text styles may vary.
Minimum one concealed pickhole.

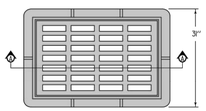
① When the contract documents require the frame to be attached to the structure, drill four $\frac{3}{4}$" diameter holes or slots, equally spaced around frame.

② Set casting at proper grade using one of the adjustment slots. Remove bolts upon completion of paving.

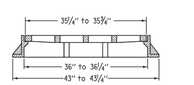
SUDAS | IOWA DOT | REVISION: 1 04-21-17
FIGURE 6010.602 | STANDARD ROAD PLAN | SW-602 | SHEET 1 of 2
REVISIONS: Revised three-piece casting configuration. Modified circle note 3.
Thad D. Wignall, SUDAS Engineer | Larson Smith, Iowa DOT Engineer
CASTINGS FOR STORM SEWER MANHOLES

FIGURE 6010.602 SHEET 1 OF 2

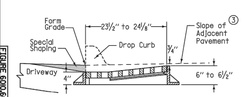
TYPE Q ①
Driveway Grate
(Minimum open area 370 in²)



PLAN

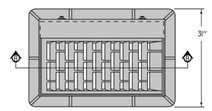


SECTION A-A

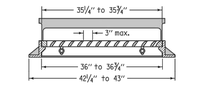


TYPICAL SECTION

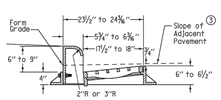
TYPE R ②
Curb Inlet Grate
(Minimum open area 80 in²)



PLAN



SECTION B-B



TYPICAL SECTION

① For use at curb drops for driveways. Use only when specified in the contract documents.

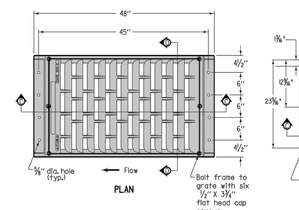
② Provide bicycle-safe vane-style grate. At low points, grates with vanes facing both directions of flow are allowed.

③ For details of boxout pavement, refer to SW-514.

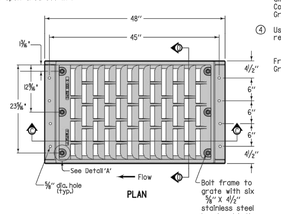
SUDAS | IOWA DOT | REVISION: 4 05-15-13
FIGURE 6010.603 | STANDARD ROAD PLAN | SW-603 | SHEET 1 of 2
REVISIONS: Changed dimensions on Type R drawings.
Thad D. Wignall, SUDAS Engineer | Larson Smith, Iowa DOT Engineer
CASTINGS FOR GRATE INTAKES

FIGURE 6010.603 SHEET 1 OF 2

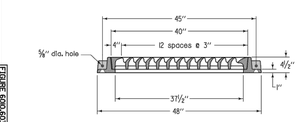
TYPE S ②④
Barrier Intake Grate
(Minimum open area 300 in²)



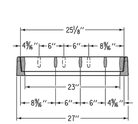
PLAN



PLAN



SECTION C-C

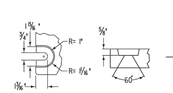


SECTION D-D

② Provide bicycle-safe vane-style grate. At low points, grates with vanes facing both directions of flow are allowed. The Contractor has the choice of which Type S Grate to use.

④ Use ductile iron frame castings meeting the requirements of ASTM A 536.

Frame minimum weight = 220 lbs.
Grate minimum weight = 340 lbs.



DETAIL 'A'
Bolt Slot Detail

SUDAS | IOWA DOT | REVISION: 4 05-15-13
FIGURE 6010.603 | STANDARD ROAD PLAN | SW-603 | SHEET 2 of 2
REVISIONS: Changed dimensions on Type R drawings.
Thad D. Wignall, SUDAS Engineer | Larson Smith, Iowa DOT Engineer
CASTINGS FOR GRATE INTAKES

FIGURE 6010.603 SHEET 2 OF 2

AREA INLET SUBDRAIN (4 SIDES)

CURB INLET SUBDRAIN (3 SIDES)

SECTION B-B

SECTION A-A

STORM SEWER SUBDRAIN NTS

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS

PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

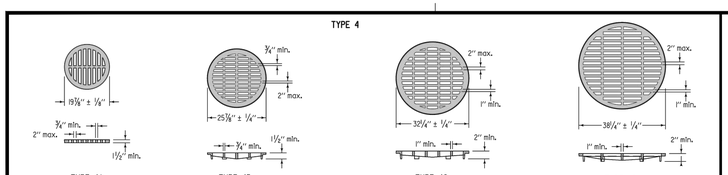
TITLE

SITE DETAILS

SHEET

C0-30

TYPE 4



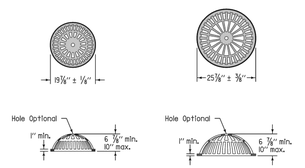
TYPE 4A
For Placement on 18" RCP

TYPE 4B
For Placement on 24" RCP

TYPE 4C
For Placement on 30" RCP

TYPE 4D
For Placement on 36" RCP

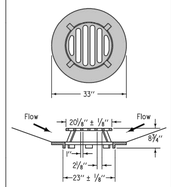
TYPE 3
(Light Duty)



TYPE 3A
For Placement on 18" RCP

TYPE 3B
For Placement on 24" RCP

TYPE 5
(Light Duty)
For Placement on 24" to 30" RCP



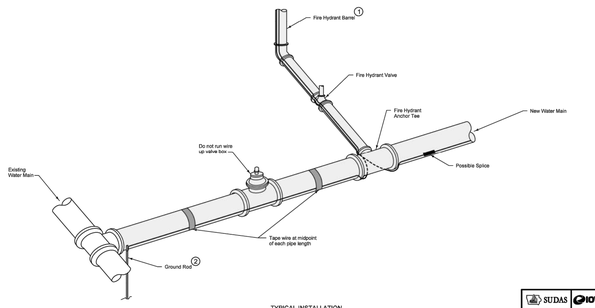
SUDAS	Iowa Department of Transportation	REVISED
FIGURE 6010.604	STANDARD ROAD PLAN	1 10-20-20
	SW-604	
	SHEET 1 of 2	

REVISIONS: Replaced item 4 with 6 and 7. Added 6 to sheet 2. Added shading.

CASTINGS FOR AREA INTAKES

FIGURE 6010.604 SHEET 1 OF 2

1. Extend tracer wire up fire hydrant barrel to internal terminals of tracer wire station and back down. Refer to WM-221 for details of fire hydrant assembly.
2. Clamp tracer wire to ground rod at system termination points.



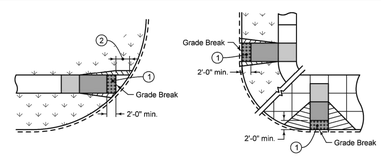
TYPICAL INSTALLATION

SUDAS	IOWADOT	REVISED
FIGURE 5010.103	STANDARD ROAD PLAN	1 10-15-18
	WM-102	
	SHEET 1 of 1	

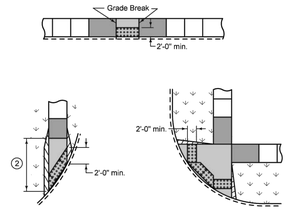
REVISIONS: Replaced item 4 with 6 and 7. Added 6 to sheet 2. Added shading.

TRACER SYSTEM

FIGURE 5010.103 SHEET 1 OF 1



PERPENDICULAR RAMPS



PARALLEL RAMPS

Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares.

1. When detectable warning is located on curb ramp surface, orient domes in the direction of pedestrian travel.
2. When the distance between the grade break and the back of curb is less than 5 feet, place detectable warning surface at the bottom of the curb ramp.

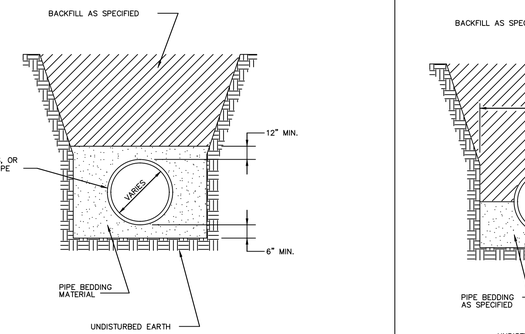
Where one corner of the curb ramp is more than 5 feet from the back of curb, construct curb ramp as a parallel curb ramp. Move grade break back as required to place detectable warning on turning space at the back of curb.

Key
- Curb Ramp
- Turning Space
- Detectable Warning

SUDAS	REVISED
	New 10-16-12
	7030.210
	SHEET 1 of 1

SUDAS Standard Specifications

DETECTABLE WARNING PLACEMENT

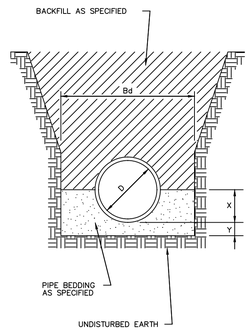


NOTE
1. EXCAVATED MATERIAL FOR BACKFILL, WHEN SPECIFIED: FINELY DIVIDED MATERIAL FREE FROM DEBRIS, STONES, ORGANIC MATTER OR FROZEN LUMPS.

CITY OF WAUKEE

GRANULAR ENCASEMENT
STANDARD PVC PIPE BEDDING

STD.DWG.NO.2



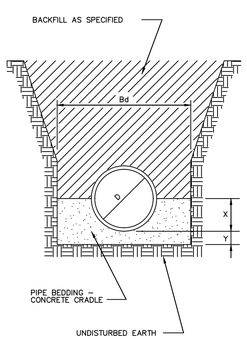
NOTES
1.EXCAVATED MATERIAL FOR BACKFILL, WHEN SPECIFIED: FINELY DIVIDED MATERIAL FREE FROM DEBRIS, STONES, ORGANIC MATTER OR FROZEN LUMPS; PIPE BEDDING OR SAND MAY BE USED AS SUBSTITUTE.
2.Bd = STANDARD TRENCH WIDTH AT TOP OF PIPE.
3.SEE SPECIFICATIONS FOR LIMITATIONS ON USE OF THIS TYPE OF BEDDING.
4.LOAD FACTOR: 1.5

CITY OF WAUKEE

CLASS C BEDDING – GRANULAR
TYPE I – LOAD FACTOR: 1.5

STD.DWG.NO.3

D (INCHES)	Bd (FEET & INCHES)	X (INCHES)	Y (INCHES)
4	2–0	2	4
6	2–0	3	4
8	2–3	3	4
10	2–3	4	4
12	2–3	5	4
15	2–9	6	4
18	3–0	7	5
21	3–3	8	6
24	3–6	9	6
27	4–0	10	7
30	4–3	11	8
36	4–9	13	9
42	5–6	15	10
48	6–3	17	12
54	7–0	20	14
60	7–9	22	15
66	8–6	24	15
72	9–3	26	15
78	10–0	28	15
84	10–9	30	15



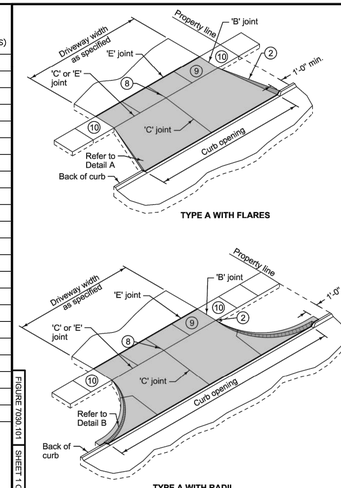
NOTES
1. EXCAVATED MATERIAL FOR BACKFILL, WHEN SPECIFIED: FINELY DIVIDED MATERIAL FREE FROM DEBRIS, STONES, ORGANIC MATTER OR FROZEN LUMPS; PIPE BEDDING MAY BE USED AS SUBSTITUTE.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH: 2500 PSI.
3. POUR CRADLE FULL WIDTH OF TRENCH EXCEPT FOR 4" & 6" PIPE.
4. CRADLE WIDTH FOR 4" & 6" PIPE: 16"
5. Bd = STANDARD TRENCH WIDTH AT TOP OF PIPE.
6. SEE SPECIFICATIONS FOR LIMITATIONS ON USE OF THIS TYPE OF BEDDING.
7. PROVIDE MINIMUM OF 2 TEMPORARY PIPE SUPPORTS UNDER BARREL PER PIPE LENGTH; PROVIDE TIES AND BRACES TO PREVENT DISPLACEMENT OR FLOTATION DURING BEDDING OR ENCASEMENT PROCEDURES.
8. LOAD FACTOR: 2.8.

CITY OF WAUKEE

CLASS A BEDDING – CONCRETE CRADLE
TYPE V – LOAD FACTOR: 2.8

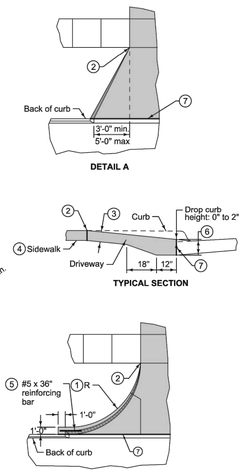
STD.DWG.NO.5

D (INCHES)	Bd (FEET & INCHES)	X (INCHES)	Y (INCHES)
4	2–6	3	4
6	2–6	4	4
8	2–6	5	4
10	2–6	6	4
12	2–6	8	4
15	2–9	10	4
18	3–0	12	5
21	3–3	14	5
24	3–6	15	6
27	4–0	17	6
30	4–3	19	6
36	4–9	22	8
42	5–6	26	8
48	6–3	29	9
54	7–0	33	10
60	7–9	36	11
66	8–6	40	12
72	9–3	43	12
78	10–0	47	12
84	10–9	50	12
90	11–6	53	12
96	12–0	57	12



TYPE A WITH FLARES

TYPE A WITH RADII



DETAIL A

TYPICAL SECTION

DETAIL B

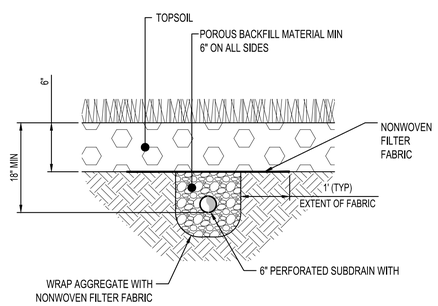
1. Driveway radius (R). Residential: 10 foot minimum,15 foot maximum. Commercial and industrial: As specified in the contract documents.
2. Transition the curb height to 0 inches at end of taper/radius or at the front edge of sidewalk. Do not extend raised curb across sidewalk.
3. Pavement thickness. Residential: 6 inches minimum. Commercial and industrial: 7 inches minimum.
4. Sidewalk thickness through driveway to match thickness of driveway.
5. Center reinforcing bar vertically in the pavement.
6. Match thickness of adjacent roadway, 8 inches minimum.
7. Provide 'E' joint at back of curb unless 'B' joint is specified.
8. For alleys, invert the pavement crown 2% toward center of alley.
9. Target cross slope of 1.5% with a maximum cross slope of 2.0%. If specified in the contract documents, construct the sidewalk through the driveway 5 feet wide to serve as a passing space.
10. If cross slope of adjacent sidewalk panel exceeds 2.0%, remove and replace to transition from existing sidewalk to sidewalk through driveway. If elevation change requires a curb ramp, comply with Figure 7030.205, verify need for detectable warning panel with Engineer.

SUDAS	REVISED
	2 10-20-15
	7030.101
	SHEET 1 of 1

SUDAS Standard Specifications

CONCRETE DRIVEWAY, TYPE A

FIGURE 7030.101 SHEET 1 OF 1



6" SUBSURFACE DRAIN
NTS SD510

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS

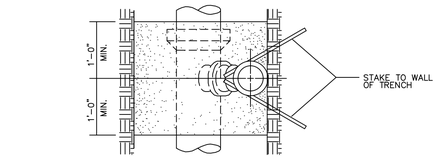
PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

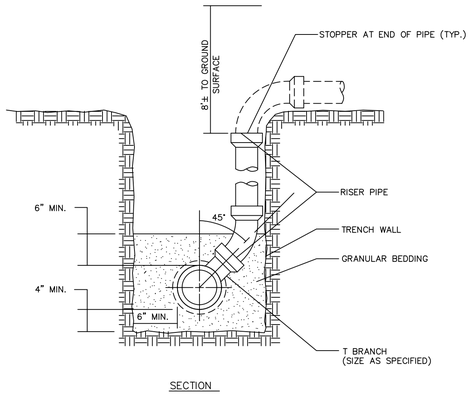
SITE DETAILS

SHEET

C0-31



PLAN



SECTION

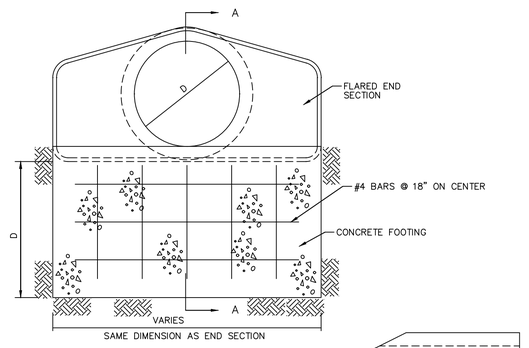
NOTES

1. INSTALL RISER PIPE TO BEAR FIRMLY AGAINST UNDISTURBED WALL OF TRENCH. STAKE RISER PIPE IN PLACE PRIOR TO BACK-FILLING TO PREVENT MOVEMENT OF PIPE.
2. NOTCH WALL OF TRENCH TO RECEIVE PIPE WHERE POSSIBLE.

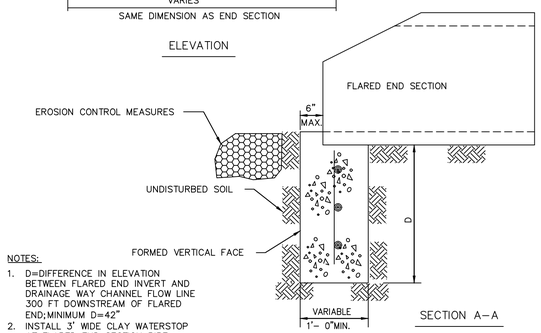
CITY OF WAUKEE

RISER

STD.DWG.NO.15



ELEVATION



SECTION A-A

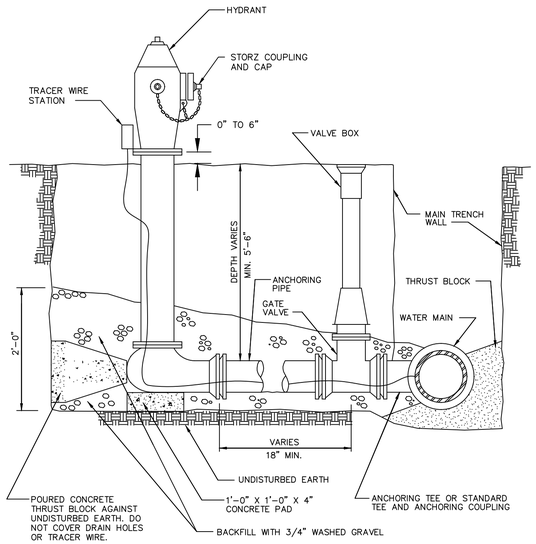
NOTES:

1. D=DIFFERENCE IN ELEVATION BETWEEN FLARED END INVERT AND DRAINAGE WAY CHANNEL FLOW LINE 300 FT DOWNSTREAM OF FLARED END; MINIMUM D=42"
2. INSTALL 3' WIDE CLAY WATERSTOP AT FLARED END SECTION PIPE JOINT.

CITY OF WAUKEE

FLARED END SECTION FOOTING DETAIL

STD.DWG.NO.30



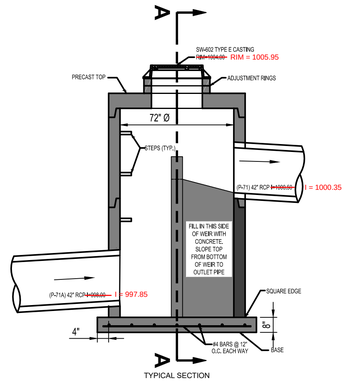
NOTES

1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6".
2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.

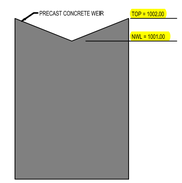
CITY OF WAUKEE

HYDRANT

STD.DWG.NO.34 REV.1



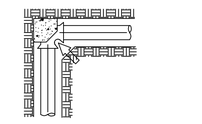
TYPICAL SECTION



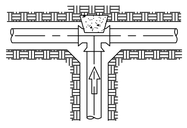
SECTION A-A

A-71 OUTLET CONTROL STRUCTURE

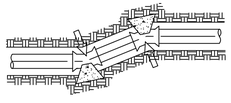
NTS



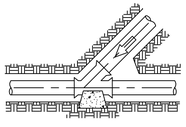
QUARTER BEND



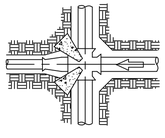
TEE



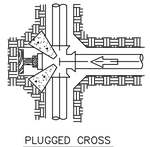
OFFSET LINE



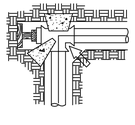
"Y" BRANCH



REDUCING CROSS



PLUGGED CROSS



PLUGGED TEE

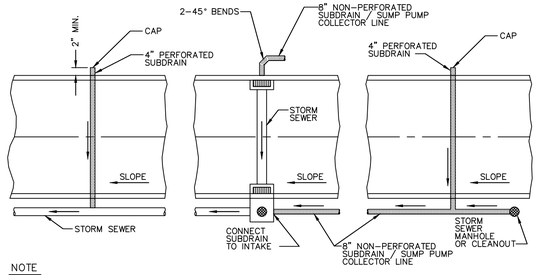
NOTES

1. TO DETERMINE THRUST BLOCK SIZE SEE TABLE IN SPECIFICATIONS.
2. BEAR THRUST BLOCKS AGAINST UNDISTURBED EARTH.
3. BRACE PLUGS AGAINST UNDISTURBED EARTH.
4. ARROWS INDICATE DIRECTION OF THRUST.
5. USE CLASS B CONCRETE.
6. DO NOT EXTEND CONCRETE BEYOND FITTING BELL.
7. ALL FITTINGS ARE SHOWN IN PLAN VIEW.
8. PUSH-ON FITTINGS USED ONLY FOR ILLUSTRATION - USE FITTINGS AS SPECIFIED.

CITY OF WAUKEE

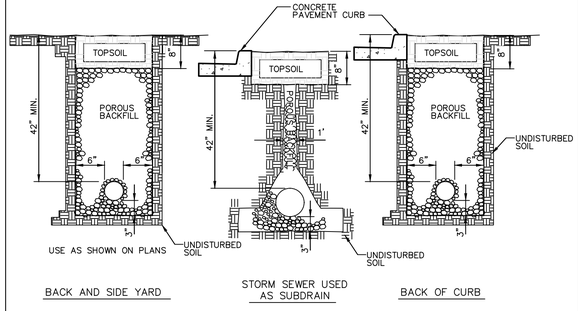
THRUST BLOCK DETAILS

STD.DWG.NO.35



NOTE

CORE DRILL ALL STORM SEWER AND PLACE NON-SHRINK GROUT COLLAR AT CONNECTION.



BACK AND SIDE YARD

STORM SEWER USED AS SUBDRAIN

BACK OF CURB

NOTES

1. SLOPE SUBDRAINS TO DRAIN.
2. 4" AND 6" BACK OF CURB SUBDRAINS AND ALL BACK AND SIDE YARD SUBDRAINS; USE PEA GRAVEL FOR POROUS BACKFILL.

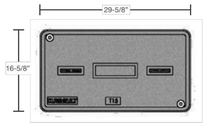
CITY OF WAUKEE

SUBDRAINS

STD.DWG.NO.37 REV. 2

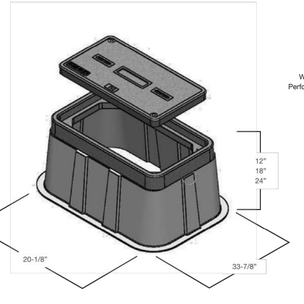
Oldcastle® Enclosure Solutions

OLDCASTLE FRP 1730 FLARED



COVER

Style:	Flush
Material:	Polymer Concrete
Model:	17" x 30"
Std. Fasteners:	1/2-13 Stainless Steel Hex Head Bolt, Washer and Floating Nut
Options:	Logos and Special Markings
Surface:	Slip Resistant
Performance:	ANSI/SCTE-77 Tier 15



BODY

Material:	Fiber Reinforced Polymer w/ Polymer Concrete Ring
Model:	17" x 30"
Depths:	12", 18", 24"
Wall Type:	Flared
Performance:	ANSI/SCTE-77 Tier 15

Medium Duty: Incidental, Non-deliberate Traffic

For use in non-vehicular traffic situations only.

Actual load rating is determined by the box and cover combination.

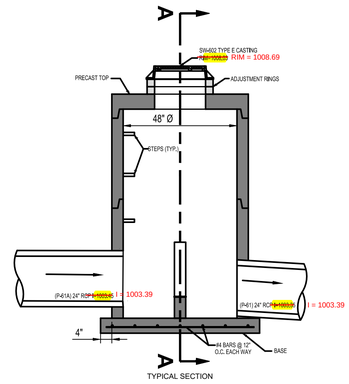
Weights and dimensions may vary slightly.

Revision 2/2018

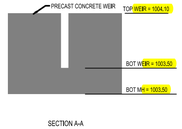
©2018 Oldcastle, Inc.

oldcastleenclosures.com
(800) 735-5566

OLDCASTLE FRP STRENGTH AND DURABILITY, CAREFULLY CRAFTED.



TYPICAL SECTION



SECTION A-A

A-61 OUTLET CONTROL STRUCTURE

NTS

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
05/29/19	CCD #4-C	JMF

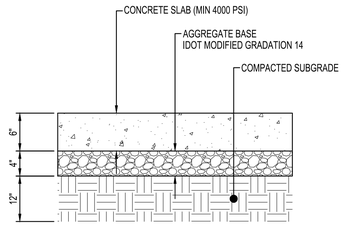
PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE DETAILS

SHEET

C0-32

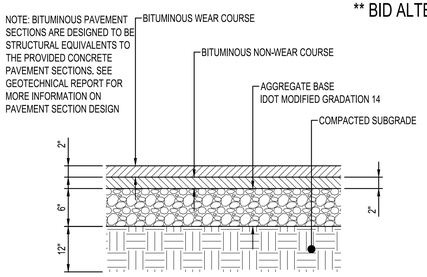


STANDARD CONCRETE PAVEMENT

NTS ST120

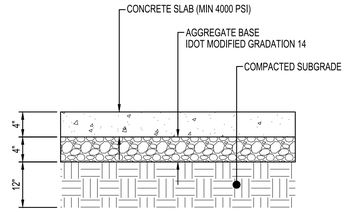
** BID ALTERNATE 1 **

NOTE: BITUMINOUS PAVEMENT SECTIONS ARE DESIGNED TO BE STRUCTURAL EQUIVALENTS TO THE PROVIDED CONCRETE PAVEMENT SECTIONS. SEE GEOTECHNICAL REPORT FOR MORE INFORMATION ON PAVEMENT SECTION DESIGN



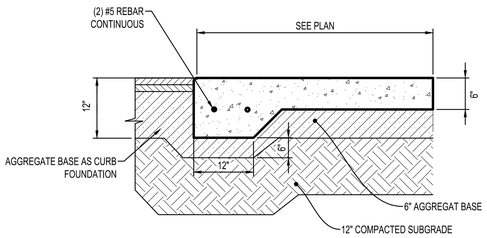
STANDARD BITUMINOUS PAVEMENT

NTS ST110



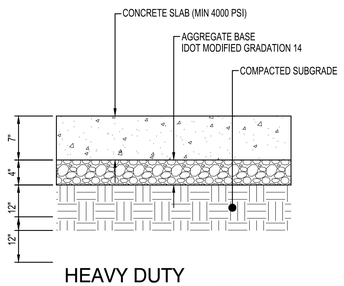
CONCRETE WALK

NTS ST160



TURN DOWN CONCRETE WALK SECTION

NTS ST160

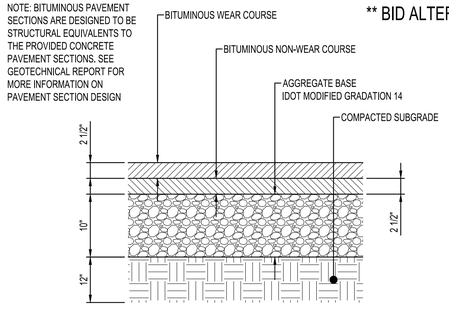


HEAVY DUTY CONCRETE PAVEMENT

NTS ST125

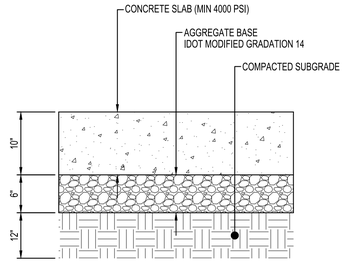
** BID ALTERNATE 1 **

NOTE: BITUMINOUS PAVEMENT SECTIONS ARE DESIGNED TO BE STRUCTURAL EQUIVALENTS TO THE PROVIDED CONCRETE PAVEMENT SECTIONS. SEE GEOTECHNICAL REPORT FOR MORE INFORMATION ON PAVEMENT SECTION DESIGN



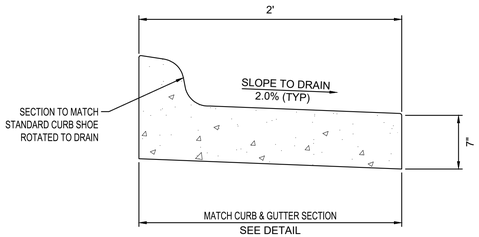
HEAVY DUTY BITUMINOUS PAVEMENT

NTS ST115



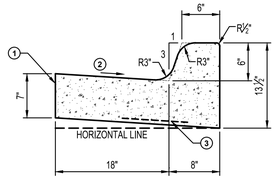
KETTLESTONE ROW CONCRETE PAVEMENT

NTS ST125



REVERSE PITCH CURB

NTS



NOTES:

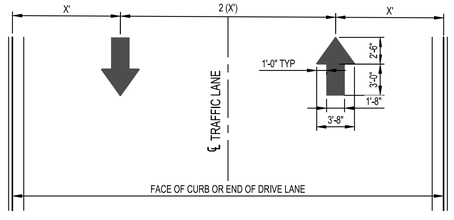
1. LONGITUDINAL JOINT WHEN ADJACENT TO RIGID PAVEMENT OR BASE.
2. SLOPE 0.06FT/FT NORMAL, UNLESS OTHERWISE SPECIFIED. IF A DIFFERENT GUTTER SLOPE IS PERMITTED, THE FORM MAY BE TILTED.

   CONCRETE TO BE PORTLAND CEMENT CONCRETE (PCC) AND SHALL COMPLY WITH IOWA DOT SECTION 2301 AND MATERIALS I.M. 529

   DO NOT INSTALL 6" BARRIER PORTION OF CURB WHERE ZERO-HEIGHT CURB IS CALLED OUT ON THE PLANS. FOLLOW NOTE 2 FOR SLOPING OF ZERO-HEIGHT CURB.

6" CURB & GUTTER

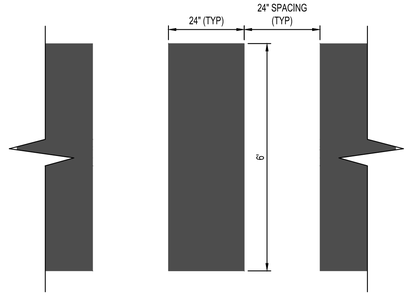
NTS ST206



NOTE:
ALL PAINT USED FOR STRIPING SHALL CONFORM TO STANDARD IDOT REQUIREMENTS, COLOR SHALL BE BRIGHT YELLOW

DIRECTIONAL ARROW STRIPING

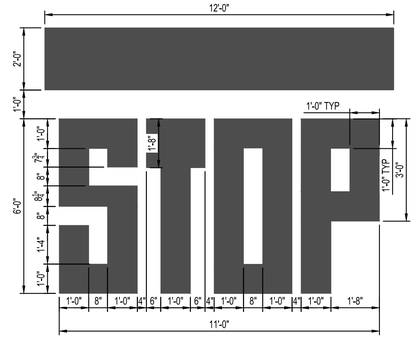
NTS



NOTE:
ALL PAINT USED FOR STRIPING SHALL CONFORM TO STANDARD IDOT REQUIREMENTS, COLOR SHALL BE BRIGHT YELLOW

CROSSWALK STRIPING

NTS



NOTE:
ALL PAINT USED FOR STRIPING SHALL CONFORM TO STANDARD IDOT REQUIREMENTS, COLOR SHALL BE BRIGHT YELLOW

STOP BAR STRIPING

NTS

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/20/18	ISSUE FOR PERMIT	AJR
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR

PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

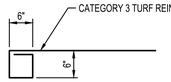
SITE DETAILS

SHEET

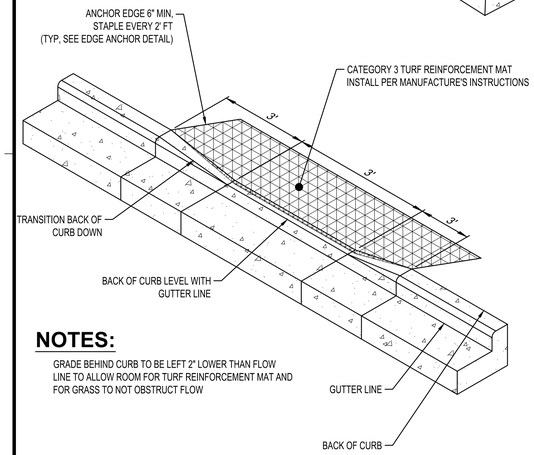
C0-33

NOTES:

GRADE BEHIND CURB TO BE LEFT 2" LOWER THAN FLOW LINE TO ALLOW ROOM FOR TURF REINFORCEMENT MAT AND FOR GRASS TO NOT OBSTRUCT FLOW



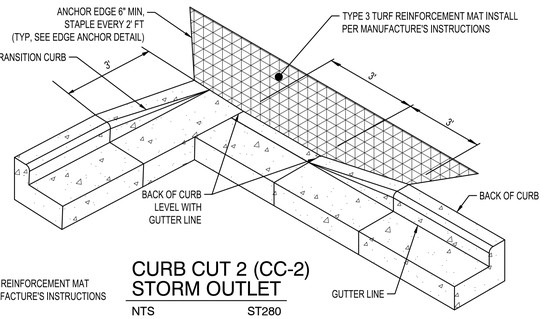
EDGE ANCHOR DETAIL



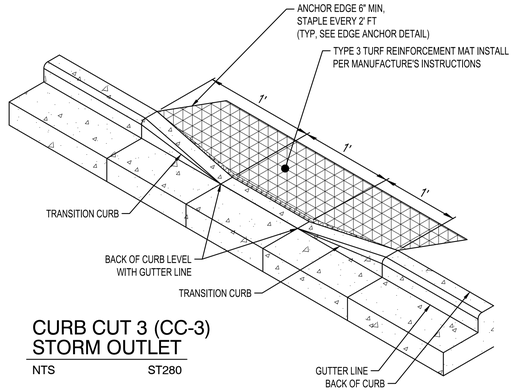
NOTES:

GRADE BEHIND CURB TO BE LEFT 2" LOWER THAN FLOW LINE TO ALLOW ROOM FOR TURF REINFORCEMENT MAT AND FOR GRASS TO NOT OBSTRUCT FLOW

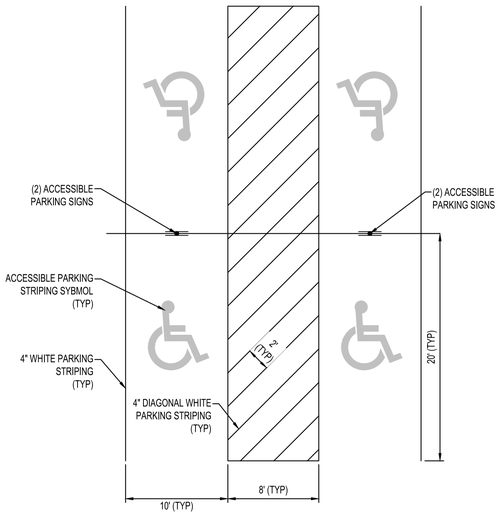
CURB CUT 1 (CC-1)
STORM OUTLET
NTS ST280



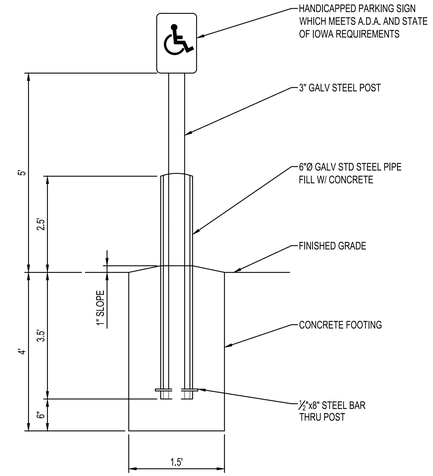
CURB CUT 2 (CC-2)
STORM OUTLET
NTS ST280



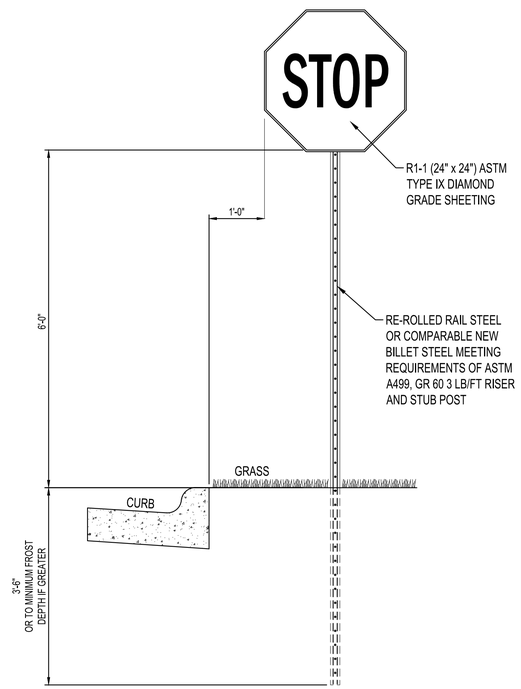
CURB CUT 3 (CC-3)
STORM OUTLET
NTS ST280



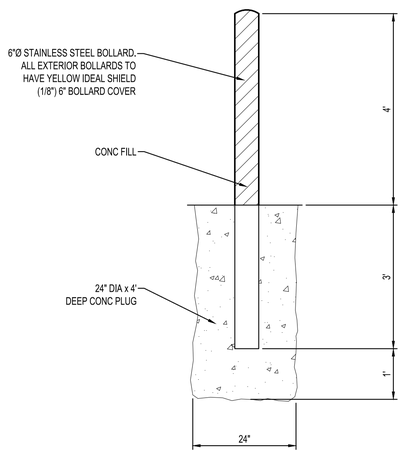
ACCESSIBLE PARKING AREA
NTS PM300



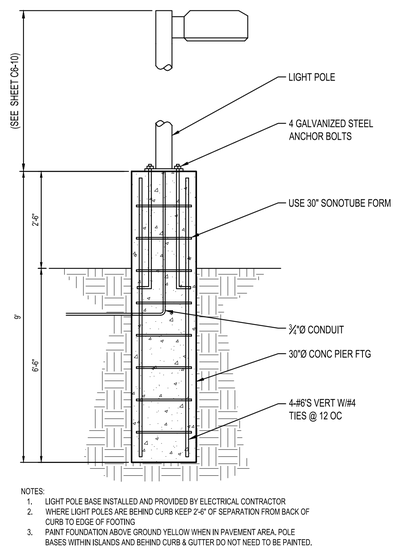
TYPE 2
ACCESSIBLE PARKING SIGN POST
NTS PM112



STOP SIGN
NTS



TYPICAL BOLLARD
NTS LD100



NOTES:
1. LIGHT POLE BASE INSTALLED AND PROVIDED BY ELECTRICAL CONTRACTOR
2. WHERE LIGHT POLES ARE BEHIND CURB KEEP 2'-6" OF SEPARATION FROM BACK OF CURB TO EDGE OF FOOTING
3. PAINT FOUNDATION ABOVE GROUND YELLOW WHEN IN PAVEMENT AREA. POLE BASES WITHIN ISLANDS AND BEHIND CURB & GUTTER DO NOT NEED TO BE PAINTED.

ROUND
LIGHT POLE BASE SECTION
NTS LT103

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
05/29/19	CCD #4-C	JMF

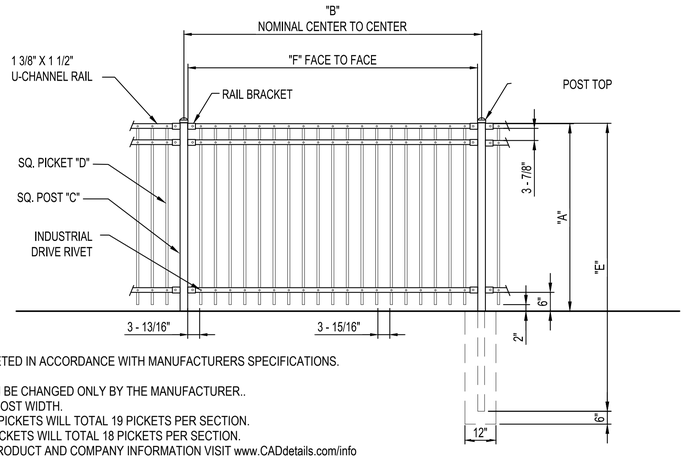
PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE DETAILS

SHEET

C0-34



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. SPECIFICATIONS SHOWN CAN BE CHANGED ONLY BY THE MANUFACTURER..
4. FOOTING WIDTH TO BE (4) X POST WIDTH.
5. FENCE SECTIONS USING 3/4" PICKETS WILL TOTAL 19 PICKETS PER SECTION.
   FENCE SECTIONS USING 1" PICKETS WILL TOTAL 18 PICKETS PER SECTION.
6. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info
   REFERENCE NUMBER 2812-073.

NOT TO SCALE

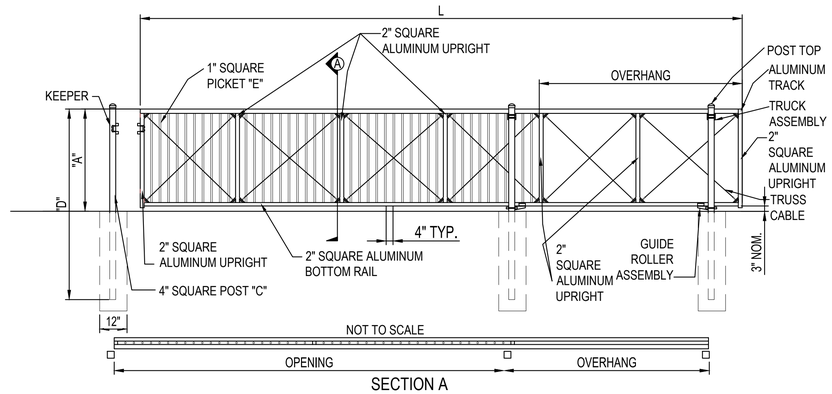
NOM HEIGHT (A)
3' - 0"
3' - 6"
4' - 0"
5' - 0"
6' - 0"
7' - 0"
8' - 0"
CUSTOM HEIGHTS AVAILABLE

POST OPTION (C)
2" SQ X 14 GA
2 1/2" SQ X 12 OR 14 GA
3" SQ X 12 GA
4" SQ X 11 GA
6" SQ X 3/16" WALL

PICKET OPTION (D)	
3/4" SQ	14 GA
OR	**16 GA**
1" SQ	18 GA
OR	
3/4" SOLID BAR	

A = 72" HEIGHT
B = 96" SECTION LENGTH
C = 3" POST SIZE 12 GAUGE
D = 3/4" PICKET SIZE 16 GAUGE
E = 150" POST LENGTH
F = 93" FACE TO FACE OF POSTS W/ STD. FLAT MOUNT BRACKET

6' IRON WORLD ABERDEEN FENCE
NTS



SECTION A

NOM HEIGHT (A)
3' - 0"
3' - 6"
4' - 0"
5' - 0"
6' - 0"
7' - 0"
8' - 0"
CUSTOM HEIGHTS AVAILABLE

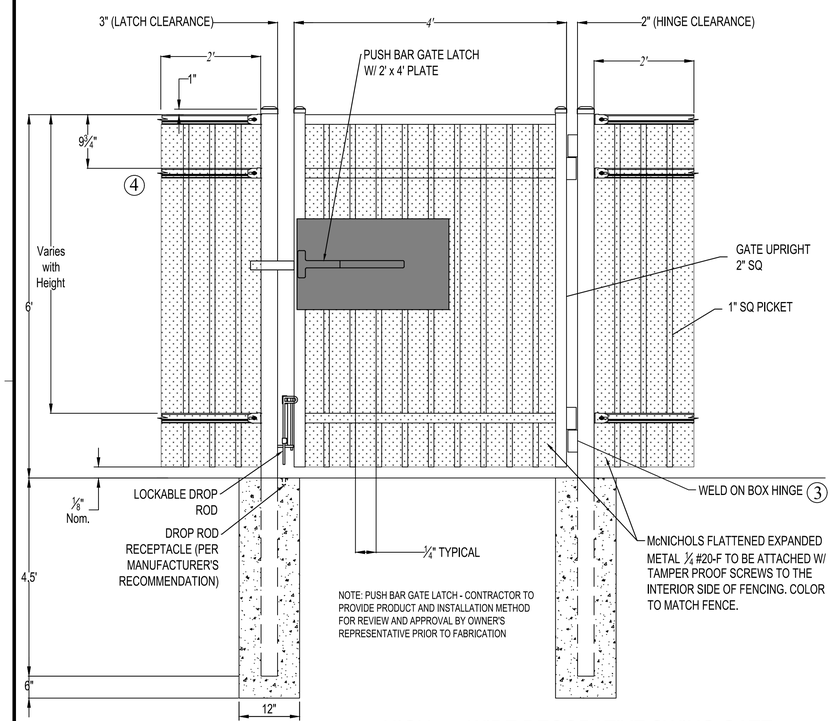
POST OPTION (C)
4" SQ X 11 GA

PICKET OPTION (E)	
1" SQ	**18 GA**

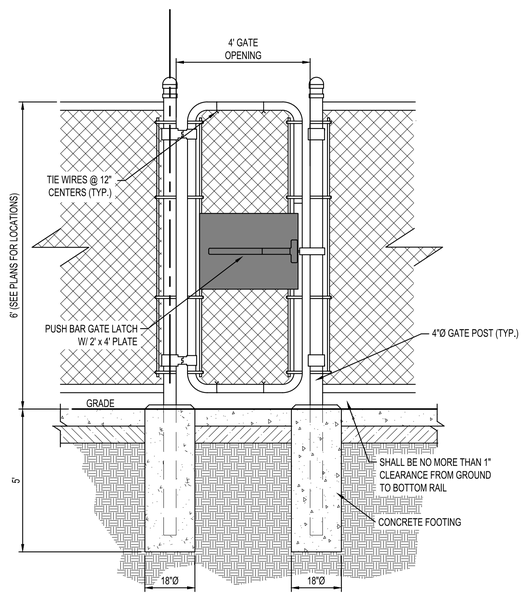
A = 72" NOM HEIGHT
B = 96" FACE TO FACE OF POSTS
C = 4" POST SIZE 11 GAUGE
D = 150" POST LENGTH
E = 1" PICKET SIZE 18 GAUGE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. SPECIFICATIONS SHOWN CAN BE CHANGED ONLY BY THE MANUFACTURER.
4. FOOTING WIDTH TO BE (4) X POST WIDTH.
5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info
   REFERENCE NUMBER 2812-018.

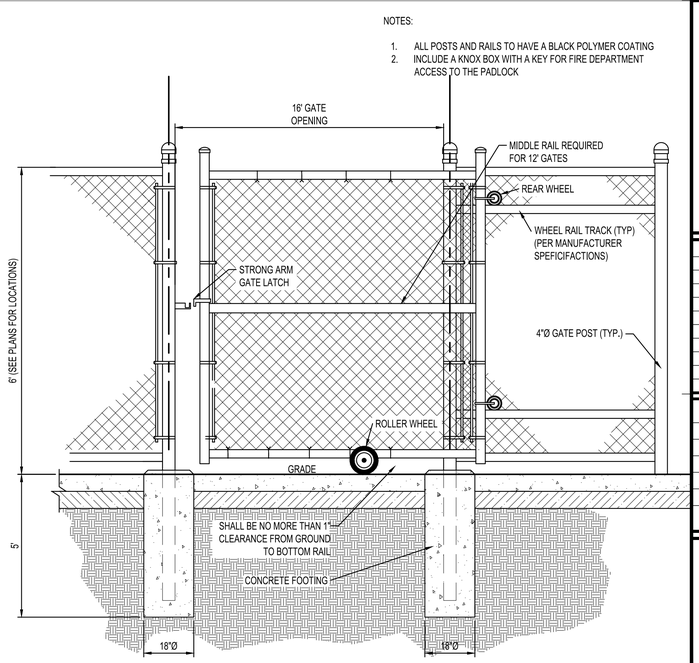
14' WIDE IRON WORLD ABERDEEN GATE - 6' HEIGHT
NTS



6' HIGH - 4' WIDE DECORATIVE SWING GATE
NTS



6' TALL - 4' WIDE CHAIN LINK SWING GATE DETAIL
N.T.S



N.T.S

6' TALL - 16' WIDE CHAIN LINK ROLLER GATE DETAIL

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
05/23/19	CCD #4-C	JMF

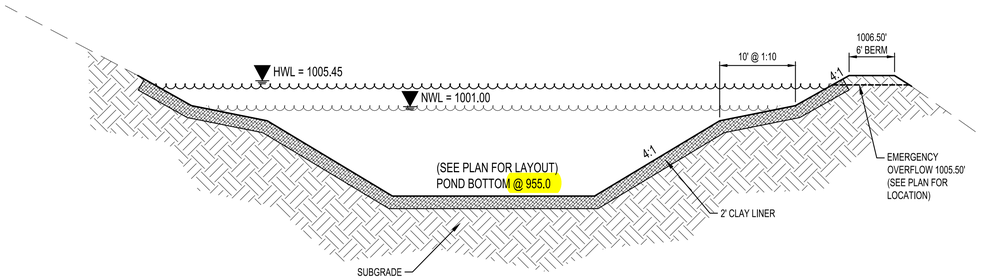
PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE DETAILS

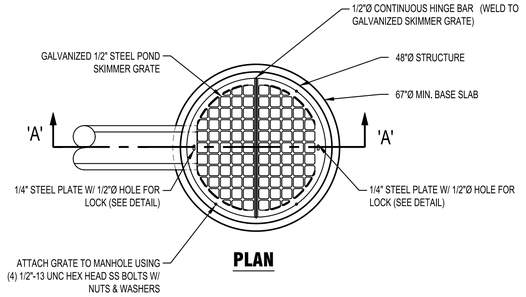
SHEET

C0-35

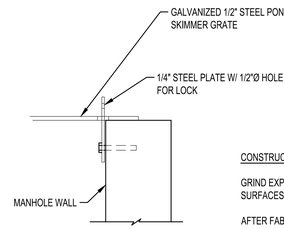


PROPOSED WET POND

NTS



PLAN



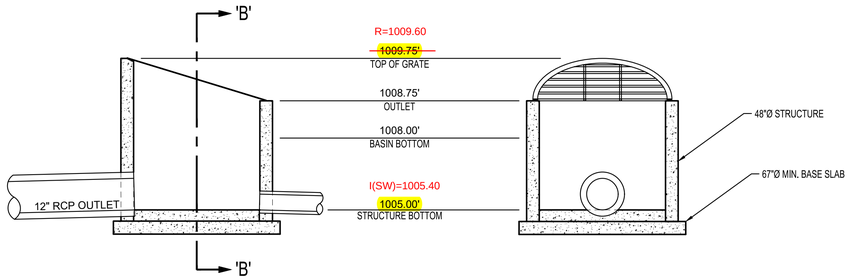
LOCK DETAIL

CONSTRUCTION NOTES:

GRIND EXPOSED FIELD & SHOP WELD FLUSH WITH ADJACENT SURFACES.

AFTER FABRICATION, GALVANIZE STRUCTURAL SHAPES AND MISC. ITEMS IN ACCORDANCE WITH ASTM A123.

REPAIR DAMAGED & SCRATCHED GALVANIZED COATINGS AFTER INSTALLATION.



SECTION A-A **SECTION B-B**

OUTLET STRUCTURE A-42

NTS SD810

FILTRATION BASIN CONSTRUCTION:

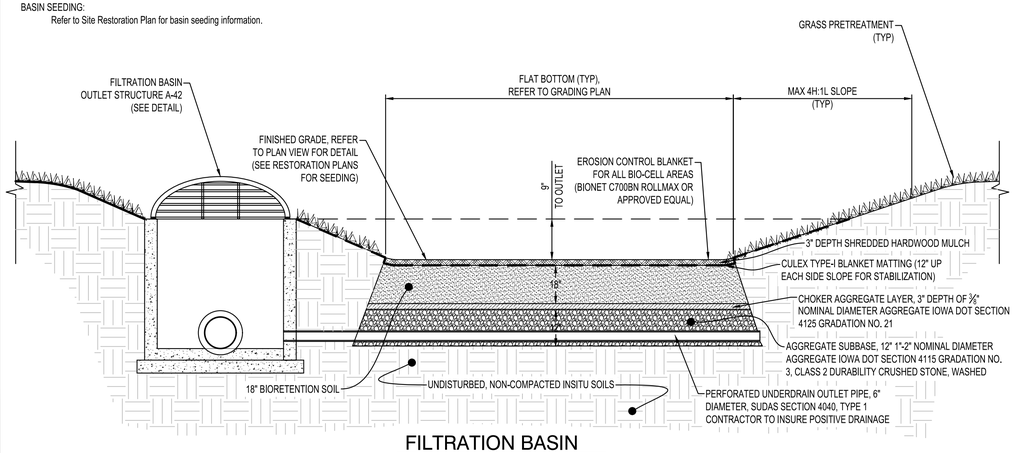
A. Work Shall Include - All excavation and construction as outlined in the plans, specifications and details outlining the construction of the filtration basin.
B. The Contractor shall maintain silt fence and construction fence around the perimeter of the filtration basin during all phases of construction. The filtration area must be staked off and marked to keep all construction traffic, equipment and material stockpiles out of the proposed filtration area.
C. The Contractor shall ensure that the filtration basin is not used as a sediment trap during construction and that no runoff enters the basin prior to the completion of construction and complete stabilization of surrounding areas draining to the basin.
D. Filtration basin shall be constructed at the end of the project after all areas surrounding it and draining into it have been constructed and fully stabilized, this includes the sanitary sewer. In order to avoid soil compaction in the basin no equipment shall be driven in the area of the basin prior to its construction, and when it is constructed only light earth moving equipment with tracks shall be used.
E. After final grading the basin's floor shall be tilled to a depth of at least 6 inches to provide a well-aerated, porous surface. Smearing of the soil in the basin shall be avoided and if smearing does occur it shall be corrected by raking or retilling of the basin.
F. Immediately following filtration basin construction, the entire basin shall be seeded and stabilized as indicated in the plans. Filtration basin MUST be fully stabilized prior to any upstream runoff being directed to basin.

BIORETENTION SOIL (WELL BLENDED MIXTURE,BY VOLUME):

- 75 % HOMOGENOUS CONSTRUCTION SAND
- 25 % NATIVE TOPSOIL

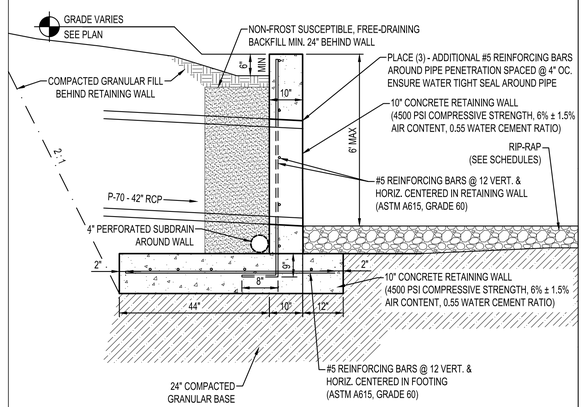
BASIN SEEDING:

Refer to Site Restoration Plan for basin seeding information.



FILTRATION BASIN

NTS SD800

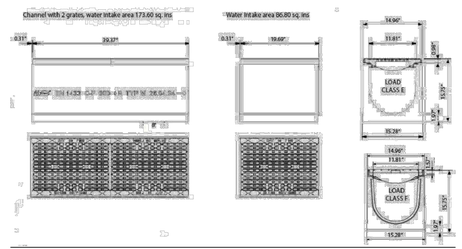


RETAINING WALL SECTION

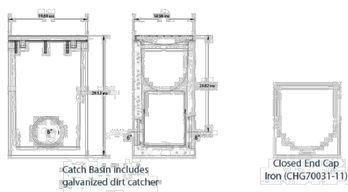
NTS LD500

SPECIFICATION SHEET April 2013 MAXI300 SIGMA HYDROTEC

MAXI300 with Ductile Iron ADA Load Class E (Part No. CHG66350-*) and ADA Load Class F (Part No. CHG66360-*)



Catch Basin and End Caps for All MAXI300



SIGMA Corporation
700 Goldman Drive
Cream Ridge, NJ 08514

www.sigmaco.com

Phone: 800 999 2550
Fax: 609 543 2308

SIGMA MAXI 300 TRENCH DRAIN

NTS

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

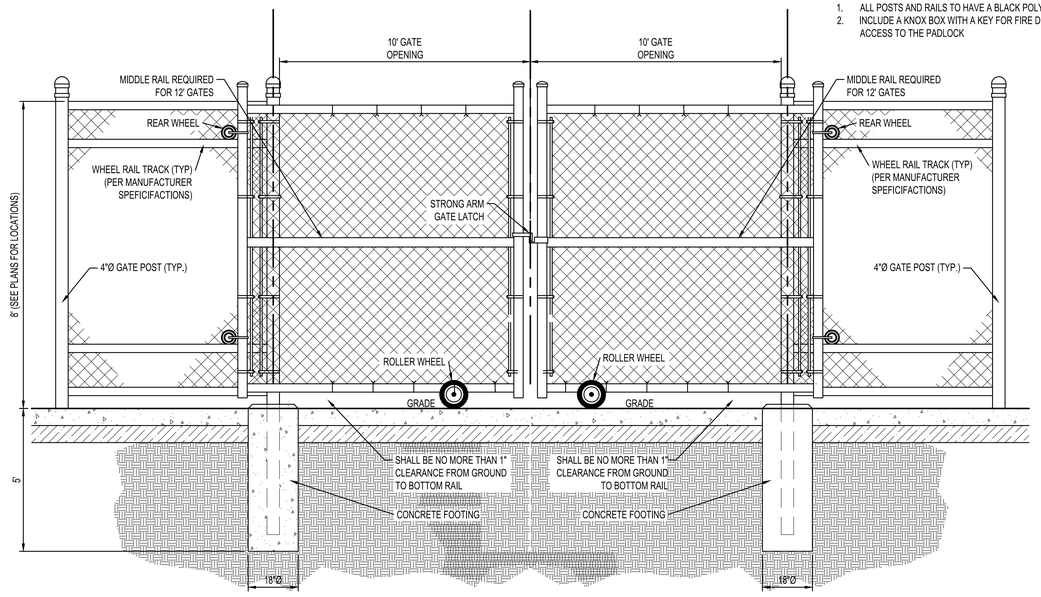
SITE DETAILS

SHEET

C0-36

NOTES:

1. ALL POSTS AND RAILS TO HAVE A BLACK POLYMER COATING
2. INCLUDE A KNOX BOX WITH A KEY FOR FIRE DEPARTMENT ACCESS TO THE PADLOCK



8' TALL - 16' WIDE CHAIN LINK DOUBLE SWING GATE DETAIL

N.T.S

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
07/17/19	CCD #5-C	PJJ

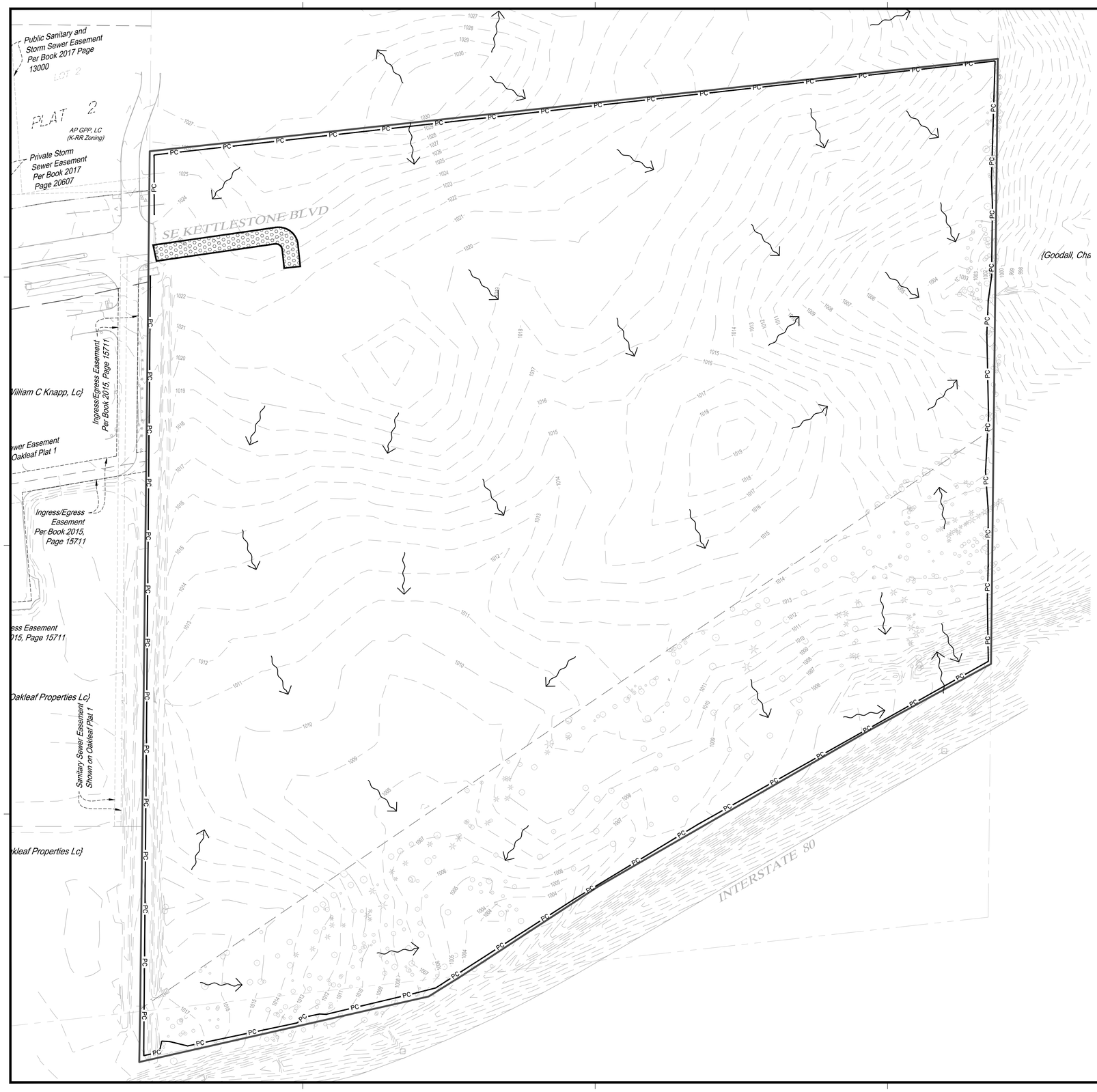
PROJECT NO.	18-22306
FILE NAME	22306 DETAILS
DRAWN BY	PJJ
DESIGNED BY	PJJ
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	07/17/19
CLIENT PROJECT NO.	-

TITLE

SITE DETAILS

SHEET

C0-37



EROSION CONTROL LEGEND

SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
PC	9040-108-G-0	PERIMETER CONTROL	LF	5,050
	9040-108-O-0	STABILIZED CONSTRUCTION EXIT	EACH	1
	N / A	EXISTING DRAINAGE ARROW		

PERIMETER CONTROL CAN BE SILT FENCE, SEDIMENT CONTROL LOG.

QUANTITIES ARE FOR INFORMATIONAL PURPOSES TO MEET THE REQUIREMENTS OF THE CONSTRUCTION STORMWATER PERMIT. NO GUARANTEE IS MADE TO THE ACTUAL QUANTITIES REQUIRED.

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.

SEE SITE RESTORATION PLAN FOR FINAL TURF ESTABLISHMENT

NOTE: SWPPP COVERAGE INCLUDES ELECTRIC, GAS, TELEPHONE, AND CABLE INSTALLATION. EACH COMPANY OR THEIR SUBCONTRACTOR IS RESPONSIBLE TO FOLLOW THE REQUIREMENTS OF THIS SWPPP INCLUDING PROVIDING THEIR OWN RESTORATION IF INSTALLATION OCCURS AFTER PRIMARY INSTALLATION OF SEEDING/SODDING/MULCHING DURING CONSTRUCTION OF EACH UTILITY.

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	REVISED PER COSESCO REVIEW	AJR

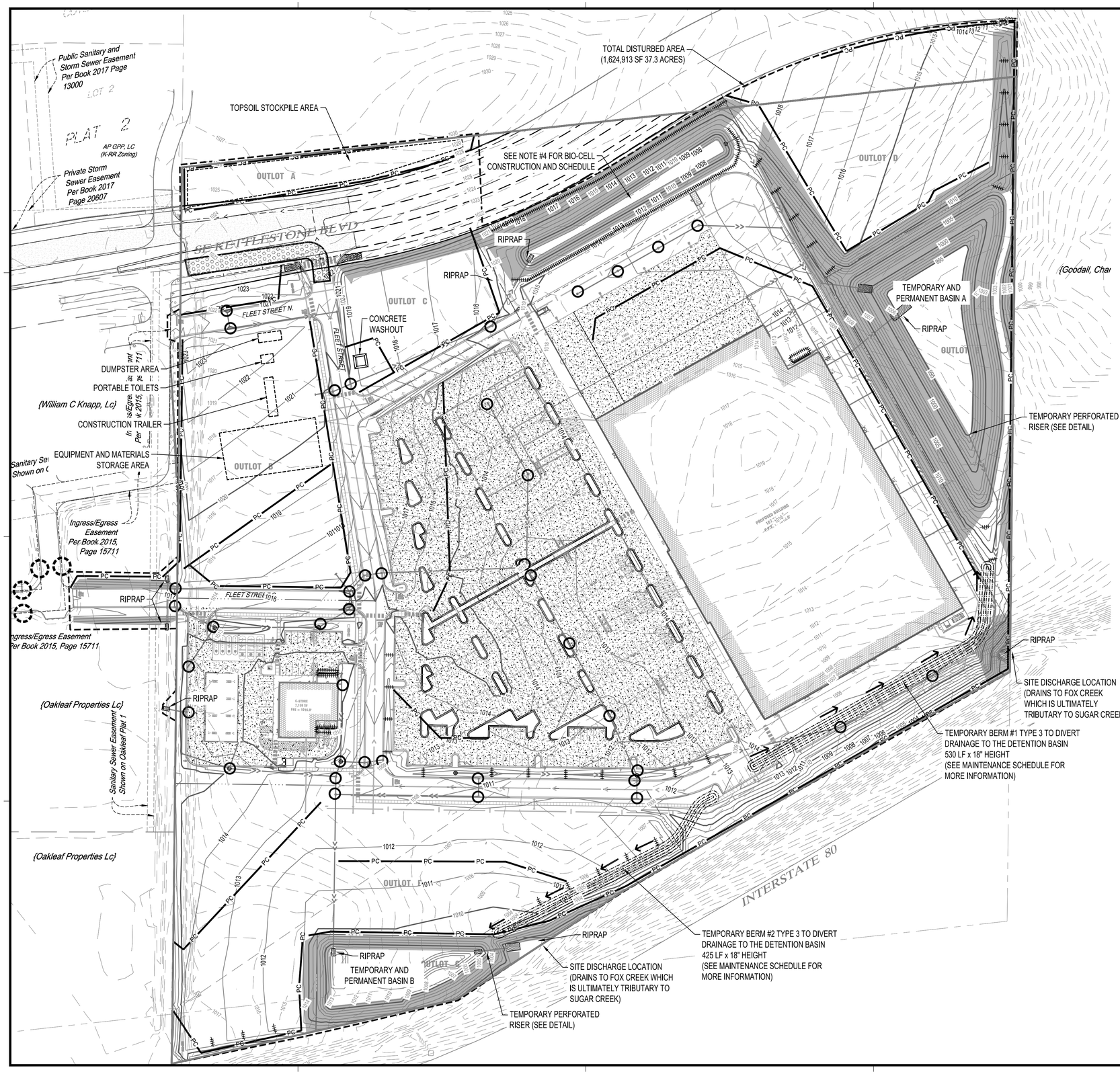
PROJECT NO.	18-22306
FILE NAME	22306 PRE SWPPP
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

PRE-CONSTRUCTION SWPPP

SHEET

C1-10



EROSION CONTROL LEGEND

SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	9040-108-J-0	EROSION STONE (IDOT 4130.04) SEE DETAILS 9040.110 AND 9040.111	CY	185
PC	9040-108-G-0	PERIMETER CONTROL	LF	9,070
	9040-108-T-0	EXISTING STORM DRAIN INLET PROTECTION	EACH	4
	9040-108-T-0	PROPOSED STORM DRAIN INLET PROTECTION	EACH	40
	9040-108-F-0	WATTLES	LF	1,450
	9040-108-O-0	STABILIZED CONSTRUCTION EXIT	EACH	1
	9040-108-E-0	EROSION CONTROL BLANKET (RECP TYPE 2.C)	SY	19,370
	11,050-108-A-0	CONCRETE WASHOUT AREA	EA	1
	9040-108-H-0	TEMPORARY EARTHEN DIVERSION STRUCTURE TYPE 3 (SEE DETAIL)	LF	990
		EXISTING DRAINAGE ARROW		
		PROPOSED DRAINAGE ARROW		

PERIMETER CONTROL CAN BE SILT FENCE, SEDIMENT CONTROL LOG.

QUANTITIES ARE FOR INFORMATIONAL PURPOSES TO MEET THE REQUIREMENTS OF THE CONSTRUCTION STORMWATER PERMIT. NO GUARANTEE IS MADE TO THE ACTUAL QUANTITIES REQUIRED.

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.

SEE SITE RESTORATION PLAN FOR FINAL TURF ESTABLISHMENT

NOTE #1: SWPPP COVERAGE INCLUDES ELECTRIC, GAS, TELEPHONE, AND CABLE INSTALLATION. EACH COMPANY OR THEIR SUBCONTRACTOR IS RESPONSIBLE TO FOLLOW THE REQUIREMENTS OF THIS SWPPP INCLUDING PROVIDING THEIR OWN RESTORATION IF INSTALLATION OCCURS AFTER PRIMARY INSTALLATION OF SEEDING/SODDING/MULCHING DURING CONSTRUCTION OF EACH UTILITY.

NOTE #2: SUDAS TYPE 4 SEED MIX TO BE USED FOR ALL TEMPORARY STABILIZATION (SUDAS 9010) SOD TO BE USED FOR ALL PERMANENT STABILIZATION (SUDAS 9020)
TEMPORARY: 16.77 ACRES
PERMANENT: 4.78 ACRES

NOTE #3: ALL EXISTING DRAINTILES DISCOVERED DURING CONSTRUCTION SHALL BE EXTENDED AND CONNECTED TO THE NEAREST PROPOSED STORM STRUCTURE TO MAINTAIN EXISTING DRAINAGE PATTERNS.

NOTE #4: BIO-CELL CONSTRUCTION: CARE SHALL BE TAKEN BY THE CONTRACTOR WHEN INSTALLING THE PROPOSED BIO-CELL. RIP-RAP SHALL BE INSTALLED AT THE UPSTREAM END AND WATTLES/SILT FENCE SHALL BE INSTALLED AT THE TOP OF THE EMBANKMENT TO PREVENT SEDIMENT ENTERING THE BIO-CELL. CONSIDER INSTALLING THE BIO-CELL AREA LAST AS PART OF THE DRAINAGE IMPROVEMENTS AND AFTER ALL UPSTREAM AREAS ARE STABILIZED WITH EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION. THE BIO-CELL SHALL REMAIN SEDIMENT FREE TO THE BEST EXTENT PRACTICAL.

N

0 80 160
SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	REVISED PER COSESCO REVIEW	AJR
12/20/18	ISSUE FOR PERMIT	AJR
12/27/18	REVISED PER COSESCO REVIEW	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 SWPPP
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

PROPOSED SWPPP

SHEET

C1-20

CONSTRUCTION ACTIVITY NOTES:

EROSION PREVENTION:

Construction of silt fence and all other erosion control measures shall be complete before other construction activity occurs.

Use phased construction wherever practical and establish turf as soon as possible to minimize sediment transport.

Turf establishment or temporary seeding or mulching of all exposed soil not being actively worked should be immediately initiated once earth disturbing activities have ceased.
Temporary cover during construction is incidental.

Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.

Stabilization of disturbed areas must be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.

SEDIMENT CONTROL PRACTICES:

Construction of silt fence and all other erosion control measures shall be complete prior to land disturbing activities occur.

Inlet erosion protection shall be installed and maintained until turf has been established.

The contractor shall be responsible to control erosion from leaving the construction zone. All eroded material that leaves the construction zone shall be collected by the contractor and returned to the site at the contractor's expense.

All streets must be swept at the end of each working day and prior to a rain event.
Silt fence or other effective erosion control measures must be installed around the perimeter of any soil stockpiles, including temporary stockpiles. Stockpiles cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches.

Perimeter control shall be installed along the back of curb immediately following curb installation at all locations with positive drainage to parking lot and/or streets, and shall remain until stabilization is achieved. This shall be accomplished through the use of silt fence, biorolls, Rock logs, or other methods approved by the Engineer.

CONSTRUCTION ACTIVITIES & SCHEDULING

ACTIVITY	SCHEDULE
Install all BMP's needed and associated with the Grading Phase such as stabilized construction entrances, silt basins, riser pipes, outlet pipes silt traps, silt fence, diversions, terraces, temporary berms, and etcetera. Proceed with stripping of existing vegetation and grading in accordance with the grading plan, while disturbing no more than necessary.	Prior to any stripping of existing vegetation or grading. After Installing all BMP's needed and associated with the Grading Phase. Furthermore, INSPECTOR approval must be obtained before the start of any stripping of existing vegetation or grading.
Proceed with infrastructure installation.	Infrastructure installation must occur prior to any building construction. Care shall be taken by the CONTRACTOR when installing the proposed bio-cell. Rip-rap shall be installed at the upstream end and wattles/silt fence shall be installed at the top of the embankment to prevent sediment entering the bio-cell. Consider installing the bio-cell area last as part of the drainage improvements and all upstream areas shall be stabilized with erosion control measures prior to construction.
Implement the installation of Temporary Seeding, Permanent Seeding, and/or Mulching.	Stabilization of disturbed areas must be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
Proceed with removal of BMP's.	BMP's may not be removed until each impacted drainage basin has been fully developed. Full development shall mean installation of pavement, buildings, and utilities, landscaping, and fully established permanent seeding. Furthermore, INSPECTOR approval must be obtained before the removal of any BMP's.

CONSTRUCTION ACTIVITY NOTES:

DEWATERING AND BASIN DRAINING:

Dewater sediment-laden water to sedimentation basins if possible, or use other BMP's to prevent erosion and remove sediment when discharging to surface waters. Use appropriate energy dissipation measures on all discharges.

Dewatering practices cannot cause nuisance conditions, erosion or in receiving channels or inundation of wetlands resulting in adverse impacts.

POLLUTION PREVENTION:

All solid waste collected from the construction site must be disposed in accordance with all applicable regulations.

All hazardous materials (oil, gasoline, fuel, paint, etc) must be properly stored to prevent spills, leaks or other discharge, storage areas shall provide secondary containment and a hazardous materials spill kit. Storage and disposal of hazardous waste must be in compliance with all applicable regulations.

Equipment maintenance areas must be limited to a defined area of the site. All runoff containing any hazardous material must be properly collected and disposed. No engine degreasing shall be allowed on site.

The contractor is responsible for monitoring air pollution and ensuring it does not exceed levels set by local, state, or federal regulations. This includes dust created by work being performed on the site. Air pollution and dust control correction is considered incidental to the unit bid prices for which work is being performed. Additional dust control measures may be required by the Engineer.

Concrete washout onsite: All liquid waste generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. The liquid waste must not contact the ground, and there must not be runoff from the concrete washout operations or areas. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

INSPECTION AND MAINTENANCE:

The Permittees must routinely inspect the construction site once every seven (7) days during active construction.

All inspections performed during construction must be recorded and records retained with the SWPPP.

Contractor is responsible for keeping a record of all rainfall information & erosion control maintenance until final establishment of turf.

All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches ½ of the height of the fence.

Erosion control, and other BMP's must be replaced, repaired, or supplemented when they reach 50% design load.

FINAL STABILIZATION:

The Permittees must ensure final stabilization of the site. The Permittees must submit a notice of termination within 30 days after final stabilization is complete or control has been passed to another owner.

All temporary erosion control measures and BMP's must be removed as part of the final site stabilization.

The storm water permit further defines final stabilization and its requirements.

MAINTENANCE SCHEDULE

The following Maintenance Schedule has been provided. The INSPECTOR must perform the inspections. The OPERATOR/CONTRACTOR must perform all needed maintenance. Furthermore, all erosion control feature requiring maintenance may not be listed below. The OPERATOR/CONTRACTOR and INSPECTOR must perform their respective duties on all BMP's that are not listed below as well.

1. Construction Entrance - The entrance shall be maintained in a condition which will prevent tracking or flow of sediment onto public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone as conditions demand and repair and/or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or materials dropped, washed or tracked onto roadways will not be permitted under any circumstances.
2. Wattles - The maintenance measures are as follows: (2.1) wattles shall be inspected weekly; (2.2) close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales; (2.3) necessary repairs to barriers or replacement of wattles shall be accomplished promptly; (2.4) sediment deposits shall be removed after each rainfall, they must be removed when the level of deposition reaches approximately one-half the height of the wattle; and (2.5) any sediment deposits remaining in place after the wattle is no longer required shall be dressed to conform to the existing grade, prepared and seeded.
3. Silt Fence - The maintenance measures are as follows; (3.1) silt fences shall be inspected weekly, any required repairs shall be made immediately; (3.2) close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting; (3.3) should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly; (3.4) sediment deposits must be removed when the level of deposition reaches approximately one-half the height of the barrier; and (3.5) any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform to the existing grade, prepared and seeded.
4. Storm Drain Inlet Protection - The maintenance measures are as follows: (4.1) structures shall be inspected weekly and repairs made as necessary and (4.2) structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.
5. Temporary Seeding - Areas which fail to establish vegetative cover adequate to prevent rill erosion will be re-seeded as soon as such areas are identified.
6. Permanent Seeding - The maintenance measures are as follows: (10.1) in general, a stand of vegetation cannot be determined to be fully established until it has been maintained for one full year after planning; (10.2) new seedlings shall be supplied with adequate moisture, supply water as needed, especially late in the season, in abnormally hot or dry conditions, or on adverse sites, water applications shall be controlled to prevent excessive runoff; (10.3) inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season, if possible; [10.3.a] if stand is inadequate for erosion control, over seed and fertilize using half of the rates originally specified; [10.3.b] if stand is 60% damaged, re-establish following seedbed and seeding recommendations; [10.3.c] if stand has less than 40% cover, re-evaluate choice of plant materials and quantities of lime and fertilizer, the soil must be tested to determine if acidity or nutrient imbalances are responsible, re-establish the stand following seedbed and seeding recommendations.
7. Street Cleaning / Sweeping - The maintenance measures are as follows: (13.1) evaluate access points daily for sediment tracking; (13.2) when tracked or spilled sediment is found on paved surfaces, it will be removed daily, during times of heavy track-out, such as during rains, cleaning may be done several times throughout the day; (13.3) all streets shall be swept at the end of each working day and prior to a rain event; (13.4) unknown spills or objects will not be mixed with the sediment; and (13.5) if sediment is mixed with other pollutants, it will be disposed of properly at an authorized landfill.
8. Temporary berms #1 and #2 -The temporary berms shall be monitored for erosion and corrections shall be done as necessary. Upon sub-grading for the proposed concrete pavement where temporary berm #1 is located, stabilization of the embankment down slope must be complete prior to removal of the berm. Temporary berm #2 will remain in place until development of outlot F occurs. Once permanent drainage measures are installed, the berm may be removed.

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	REVISED PER COSESCO REVIEW	AJR

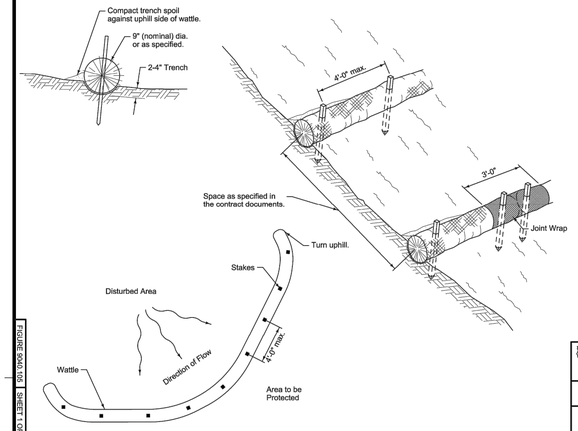
PROJECT NO.	18-22306
FILE NAME	22306 SWPPP NOTES
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

SWPPP GENERAL INFORMATION AND NOTES

SHEET

C1-30

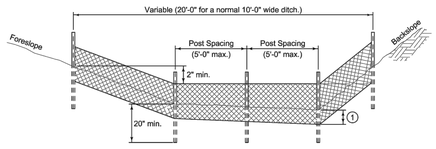


SUDAS 9040.105 SHEET 1 of 1 — REVISION 2 10-21-14

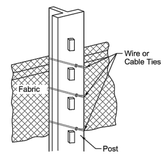
SUDAS Standard Specifications

WATTLE

FIGURE 9040.105 SHEET 1 OF 1



TYPICAL SILT FENCE DITCH CHECK



ATTACHMENT TO POST

1. Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).

SUDAS 9040.119 SHEET 1 of 2 — REVISION 2 10-21-14

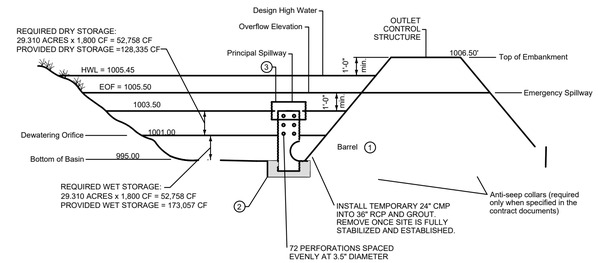
SUDAS Standard Specifications

SILT FENCE

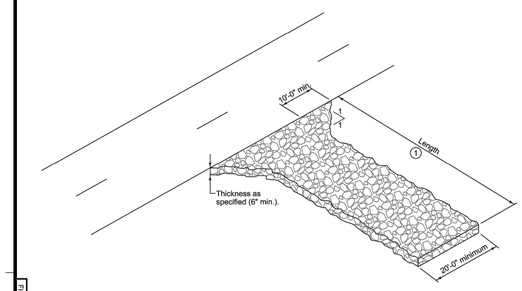
FIGURE 9040.114 SHEET 1 OF 1

NOTE: DETAIL HAS BEEN CUSTOMIZED FOR SEDIMENT BASIN A BASED ON SUDAS DETAIL 9040.114

1. Barrel length and diameter as specified in the contract documents.
2. Riser pipe and base/dewatering device: See Figure 9040.115.
3. Anti-vortex device: See Figure 9040.116.



SEDIMENT BASIN A



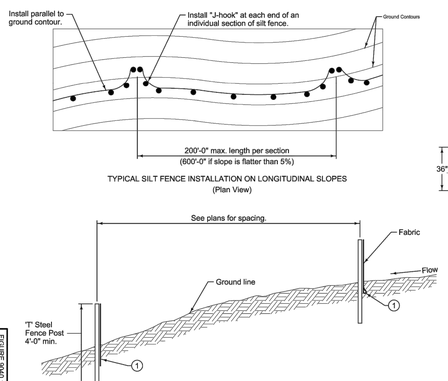
1. Entrance length: 50 foot minimum (30 foot for single family residential), or as specified in the contract documents. Length of entrance may be increased if sediment track-out occurs.

SUDAS 9040.120 SHEET 1 of 1 — REVISION 2 10-21-14

SUDAS Standard Specifications

STABILIZED CONSTRUCTION ENTRANCE

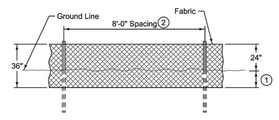
FIGURE 9040.120 SHEET 1 OF 1



TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Plan View)

TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Profile View)

1. Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).
2. Reduce post spacing to 5'-0" at water concentration areas, or as required to adequately support fence.



DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

SUDAS 9040.119 SHEET 2 of 2 — REVISION 2 10-21-14

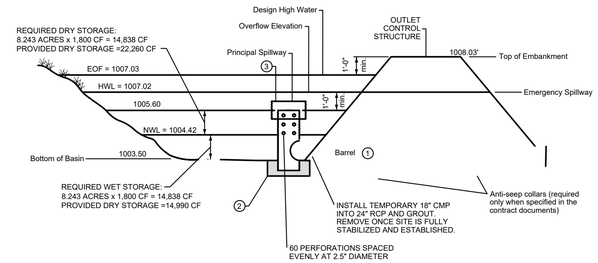
SUDAS Standard Specifications

SILT FENCE

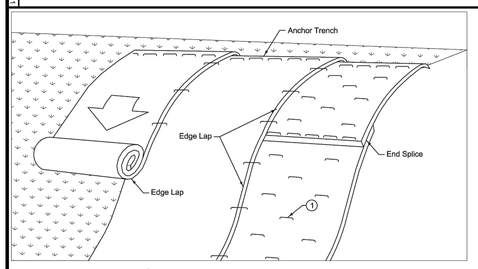
FIGURE 9040.114 SHEET 2 OF 2

NOTE: DETAIL HAS BEEN CUSTOMIZED FOR SEDIMENT BASIN B BASED ON SUDAS DETAIL 9040.114

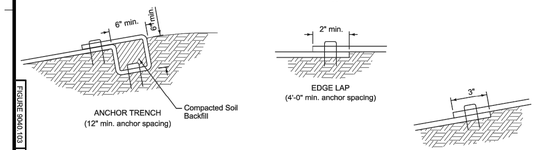
1. Barrel length and diameter as specified in the contract documents.
2. Riser pipe and base/dewatering device: See Figure 9040.115.
3. Anti-vortex device: See Figure 9040.116.



SEDIMENT BASIN B



1. Secure blanket to ground according to manufacturer's recommended anchoring pattern and minimum shown in Table 1.



ANCHOR TRENCH
(12" min. anchor spacing)

EDGE LAP
(4'-0" min. anchor spacing)

END SPLICE
(18" min. anchor spacing)

TABLE 1

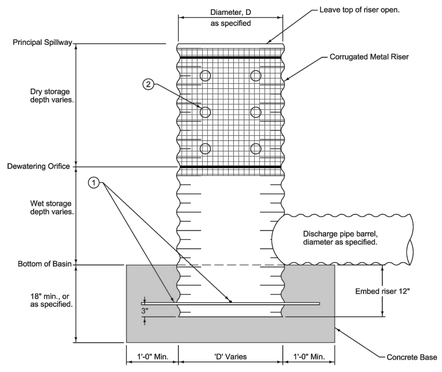
Max. slope	Min. anchors
≤ 3:1	1.5/yd²
2:1	2/yd²
1:1	2.5/yd²

SUDAS 9040.103 SHEET 1 of 1 — REVISION 2 10-21-14

SUDAS Standard Specifications

ROLLED EROSION CONTROL PRODUCT (RECP) INSTALLATION ON SLOPES

FIGURE 9040.103 SHEET 1 OF 1



Elevations and dimensions not given are as specified in the contract documents.

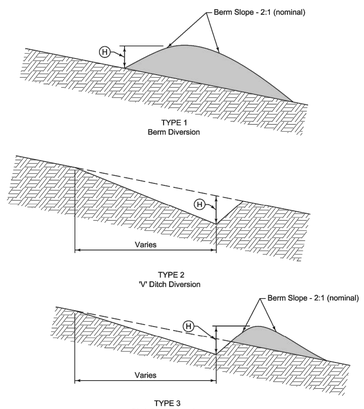
1. Drill four, 5/8 inch diameter holes, 3 inches from bottom of riser pipe and insert two, #4 bars in an "X" configuration. Length of bars = D+16 inches
2. Provide perforation configuration as specified in the contract documents.

SUDAS 9040.115 SHEET 1 of 1 — REVISION 2 10-21-14

SUDAS Standard Specifications

SEDIMENT BASIN DEWATERING DEVICE (PERFORATED RISER)

FIGURE 9040.100 SHEET 1 OF 1



Diversion Types 1, 2, and 3 may be used interchangably unless otherwise specified in the contract documents.

Alternate configurations may be used upon approval from the Engineer.

(H) Total height of diversion (swale and berm): 18 inch minimum or as specified.

SUDAS 9040.108 SHEET 1 of 1 — REVISION 2 10-21-14

SUDAS Standard Specifications

TEMPORARY EARTH DIVERSION STRUCTURES

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	REVISED PER COSESCO REVIEW	AJR
12/20/18	ISSUE FOR PERMIT	AJR
01/22/19	REVISED PER CITY REVIEW	AJR
01/25/19	REVISED PER COSESCO REVIEW	AJR

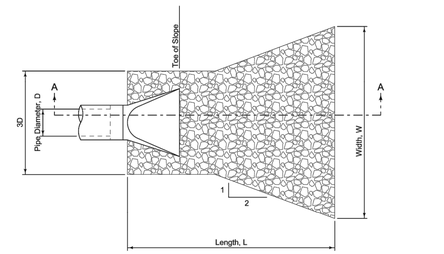
PROJECT NO.	18-22306
FILE NAME	22306 SWPPP NOTES
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

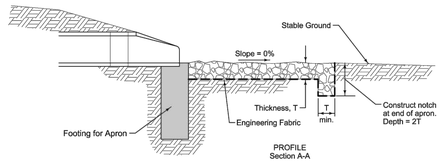
SWPPP DETAILS

SHEET

C1-31



PLAN



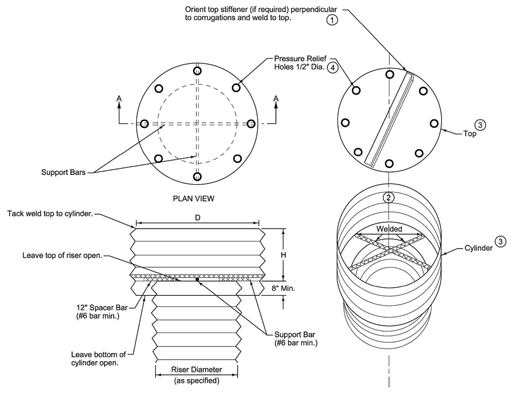
PROFILE
Section A-A

FIGURE SW-501.110 SHEET 1 OF 1

SUDAS 9040.110 REVISION 3 10-21-14 SHEET 1 of 1

SUDAS Standard Specifications

RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND



Alternate anti-vortex device configurations may be utilized upon approval of the Engineer.

1. See sheet 2 for dimensions of cylinder support bars, top plate, and top stiffener.
2. Firmly attach the anti-vortex cylinder to the top of the riser by welding or other means.
3. Corrugated metal or 1/8 inch steel plate cylinder and top.
4. Pressure relief holes may be omitted if ends of corrugations are left fully open when the top is attached.

FIGURE SW-501.116 SHEET 1 OF 2

SUDAS 9040.116 REVISION 2 10-21-14 SHEET 1 of 2

SUDAS Standard Specifications

ANTI-VORTEX DEVICE

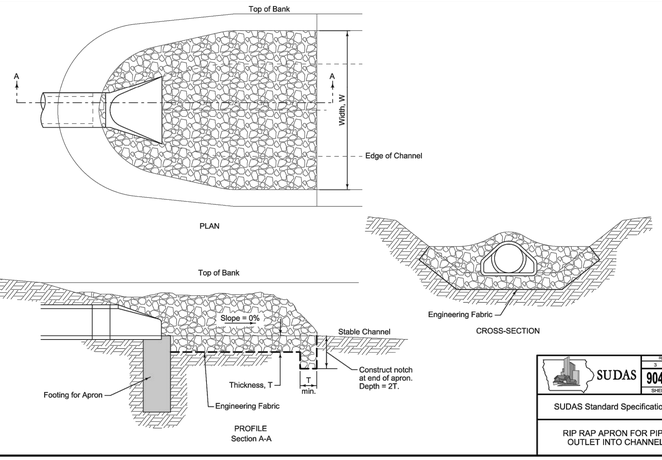


FIGURE SW-501.111 SHEET 1 OF 1

SUDAS 9040.111 REVISION 3 10-21-14 SHEET 1 of 1

SUDAS Standard Specifications

RIP RAP APRON FOR PIPE OUTLET INTO CHANNEL

RISER	CYLINDER				MINIMUM TOP	
Diameter (in.)	Diameter (in.)	Thickness (gage)	Height (H) (in.)	Minimum Size Support Bar	Thickness	Stiffener
12	18	16	6	#6 rebar or 1 1/2" X 3/16" angle	16 ga F & C	----
15	21	16	7	#6 rebar or 1 1/2" X 3/16" angle	16 ga F & C	----
18	27	16	8	#6 rebar or 1 1/2" X 3/16" angle	16 ga F & C	----
21	30	16	11	#6 rebar or 1 1/2" X 3/16" angle	16 ga (C), 14 ga (F)	----
24	36	16	13	#6 rebar or 1 1/2" X 3/16" angle	16 ga (C), 14 ga (F)	----
27	42	16	15	#6 rebar or 1 1/2" X 3/16" angle	16 ga (C), 14 ga (F)	----
36	54	16	17	#8 rebar	14 ga (C), 12 ga (F)	----
42	60	16	19	#8 rebar	14 ga (C), 12 ga (F)	----
48	72	16	21	1 1/4" pipe or 1 1/4" X 1 1/4" X 1/4" angle	14 ga (C), 10 ga (F)	----
54	78	16	25	1 1/4" pipe or 1 1/4" X 1 1/4" X 1/4" angle	14 ga (C), 10 ga (F)	----
60	90	14	29	1 1/2" pipe or 1 1/2" X 1 1/2" X 1/4" angle	12 ga (C), 8 ga (F)	----
66	96	14	33	2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2" X 2" X 1/4" angle
72	102	14	36	2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2 1/2" X 2 1/2" X 1/4" angle
78	114	14	39	2 1/2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2 1/2" X 2 1/2" X 1/4" angle
84	120	12	42	2 1/2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2 1/2" X 2 1/2" X 5/16" angle

Notes:

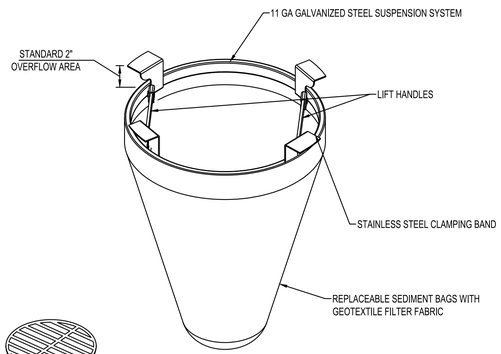
1. The criterion for sizing the cylinder is that the area between the inside of the cylinder and the outside of the riser is equal to or greater than the area inside the riser. Therefore, the above table is invalid for use with concrete pipe risers.
2. C - Corrugated F - Flat.

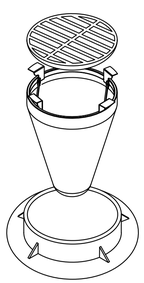
FIGURE SW-501.116 SHEET 2 OF 2

SUDAS 9040.116 REVISION 2 10-21-14 SHEET 2 of 2

SUDAS Standard Specifications

ANTI-VORTEX DEVICE





NOTES:

FOR SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

INSTALLATION:

REMOVE GRATE

DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE

REPLACE GRATE

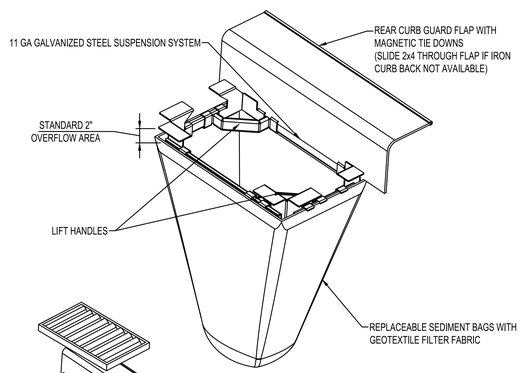
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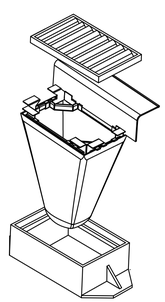
FRAMING - 11 GAUGE STEEL; CORROSION RESISTANT

SEDIMETN BAG - WOVEN GEOTEXTILE FABRIC; 2 CUBIC FOOT TYP VOLUME; STAINLESS STEEL LOCKING BAND SECURING BAG TO FRAME

ROUND FILTER INLET PROTECTION

NTS EC210





NOTES:

FOR SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

INSTALLATION:

REMOVE GRATE

DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE

REPLACE GRATE

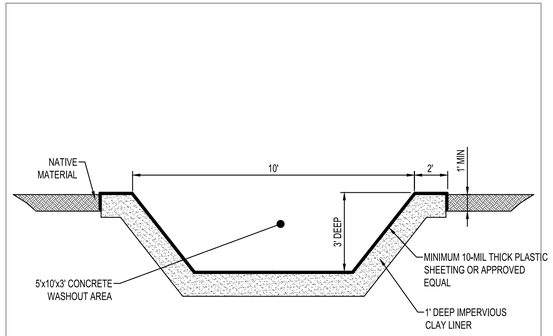
MATERIALS:

FRAMING - 11 GAUGE STEEL; CORROSION RESISTANT

SEDIMETN BAG - WOVEN GEOTEXTILE FABRIC; 2 CUBIC FOOT TYP VOLUME; STAINLESS STEEL LOCKING BAND SECURING BAG TO FRAME

CURB BOX FILTER INLET PROTECTION

NTS EC212



NOTES:

CONTRACTOR SHALL INSTALL A SIGN INDICATING THE CONCRETE WASHOUT AREA.

CONTRACTOR SHALL MAINTAIN WASHOUT AREA TO REMOVE MATERIALS BEYOND 75% CAPACITY.

WASHOUT AREA SHALL NOT BE PLACED WITHIN 50' OF STORM DRAINS, OPEN DITCHES OR BODIES OF WATER.

CONTRACTOR SHALL INSPECT WASHOUT AREA AS NECESSARY TO PREVENT LEAKS AND OVER TOPPING.

WASHOUT AREA SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETE.

CONCRETE WASHOUT

NTS EC500

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	REVISED PER COSESCO REVIEW	AJR
12/20/18	ISSUE FOR PERMIT	AJR
01/22/19	REVISED PER CITY REVIEW	AJR

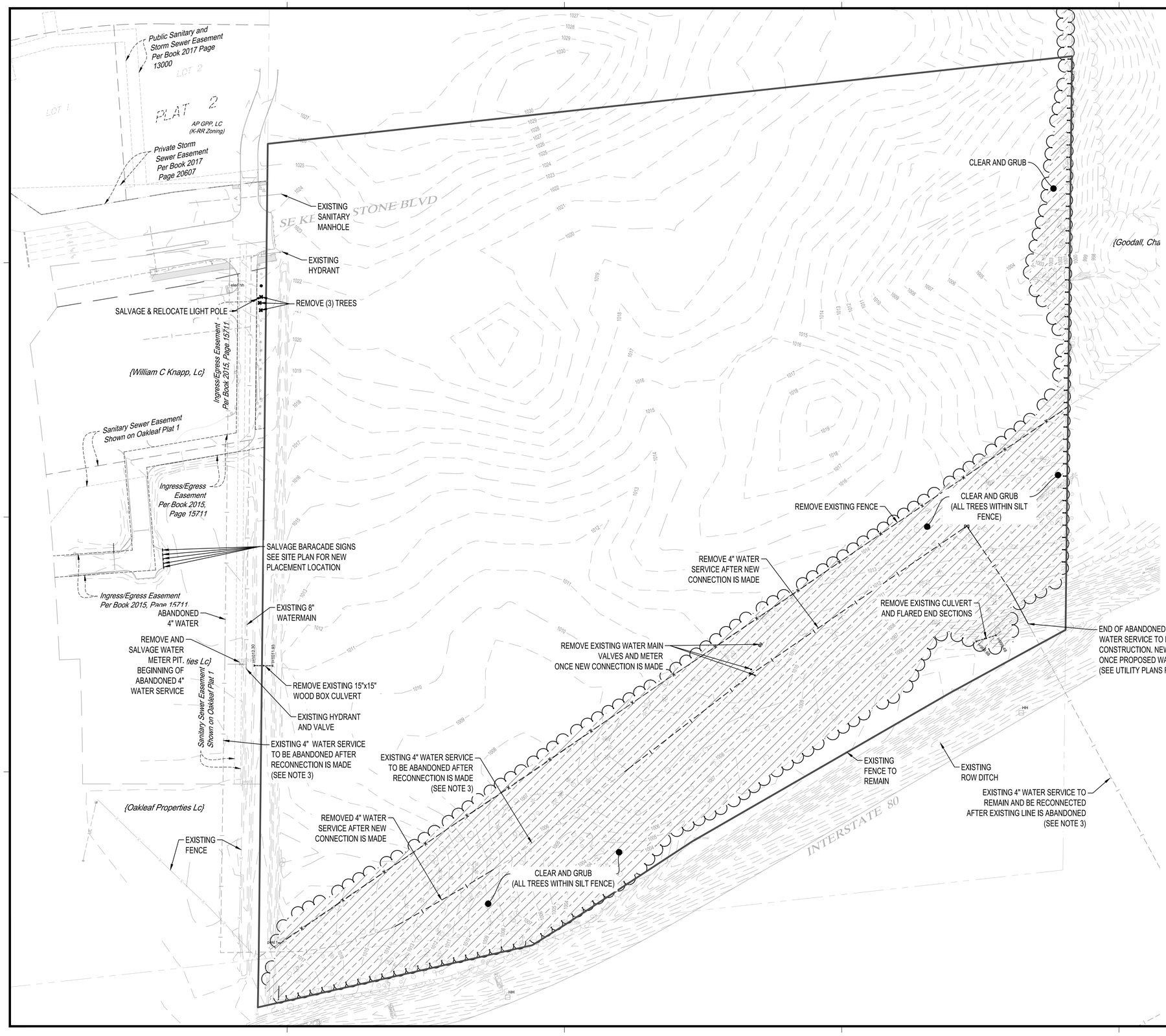
PROJECT NO.	18-22306
FILE NAME	22306 SWPPP NOTES
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SWPPP DETAILS

SHEET

C1-32



REMOVAL LEGEND

SYMBOL	DESCRIPTION
	CLEAR & GRUB TREES & UNDERBRUSH

NOTES:

1: ALL EXISTING DRAINTILES DISCOVERED DURING CONSTRUCTION SHALL BE EXTENDED AND CONNECTION TO THE NEAREST PROPOSED STORM STRUCTURE TO MAINTAIN EXISTING DRAINAGE PATTERN.

2: ALL EXISTING FARM FENCE ON THE PROPERTY IS TO BE REMOVED.

3. EXISTING 4" WATER SERVICE IS CURRENTLY RUNNING THROUGH THE SOUTH SIDE OF THE SITE. THIS SERVICE IS TO REMAIN LIVE DURING CONSTRUCTION. ALL REMOVAL SECTIONS WILL OCCUR ONCE THE SERVICE IS RECONNECTED TO THE PROPOSED WATERMAIN LOOP (SEE UTILITY PLANS FOR NEW CONNECTION INFORMATION). SERVICE INTERRUPTION WILL BE LIMITED TO BE 8 HOURS OR LESS.

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY COMMENTS	AJR
02/19/19	REVISED PER CITY COMMENTS #2	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS

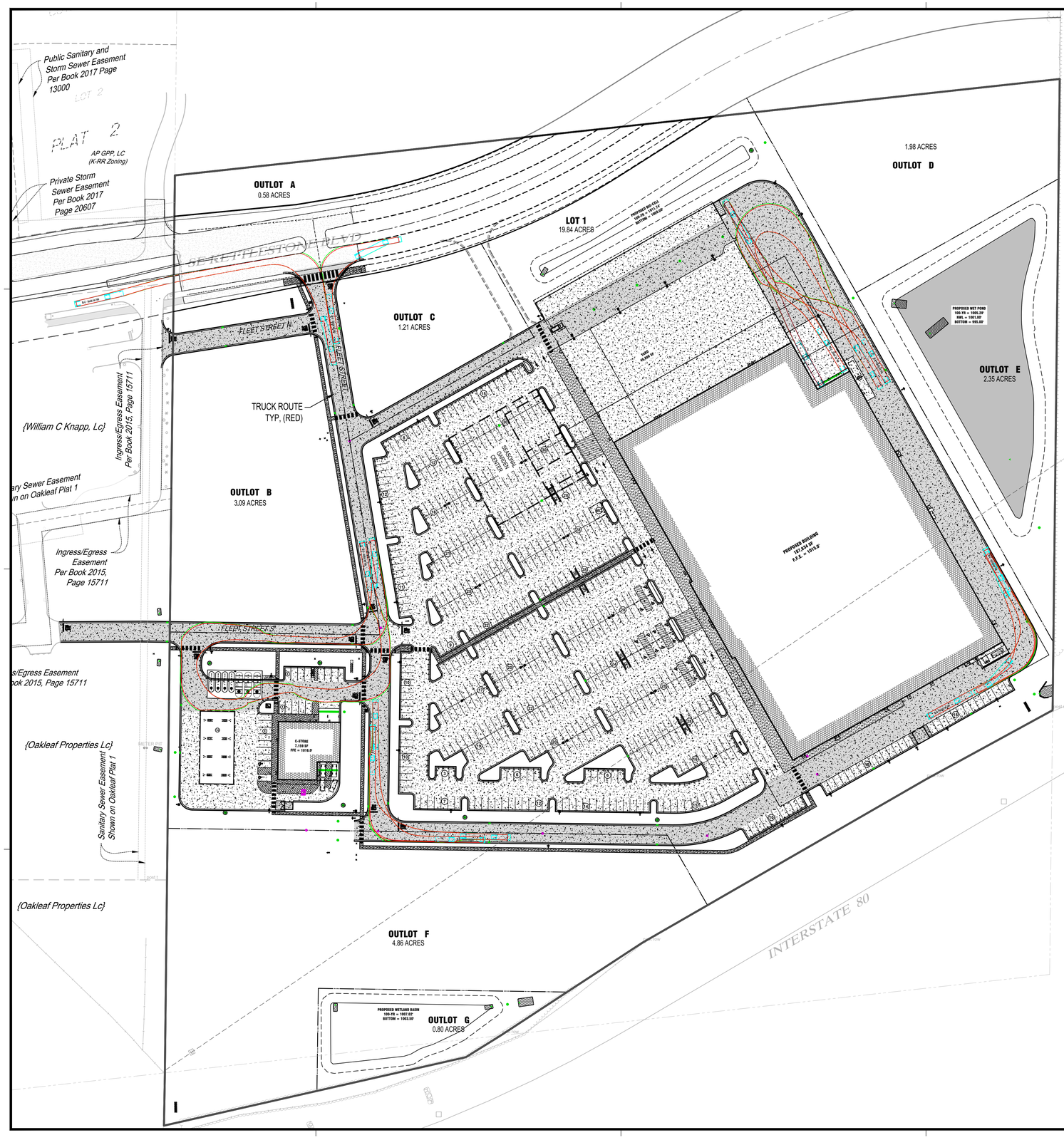
PROJECT NO.	18-22306
FILE NAME	22306 EXISTING
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

EXISTING SITE AND REMOVALS

SHEET

C2-10



SITE SUMMARY

EXISTING ZONING:	AGRICULTURAL DISTRICT (A-1)
PROPOSED ZONING:	KETTLESTONE REGIONAL RETAIL (KRR)
PROPERTY AREA:	1,597,345 SQ. FT / 36.67 AC.
PROJECT AREA:	1,522,218 SQ. FT / 34.95 AC.
IMPERVIOUS AREA:	1,178,298 SQ. FT / 27.05 AC.
PERVIOUS AREA:	343,920 SQ. FT / 7.90 AC.

CONSTRUCTION TYPES

MAIN BUILDING = 32' TALL PRECAST CONCRETE PANEL AND METAL ROOF
C-STORE = 18' TALL PRECAST CONCRETE PANEL AND METAL ROOF

OPEN SPACE REQUIREMENTS

PROPERTY AREA:	964,817 SQ. FT / 22.15 AC.
OPEN SPACE AREA:	252,587 SQ. FT / 5.80 AC.
OPEN SPACE REQUIRED:	20.00 %
OPEN SPACE PROVIDED:	26.18 %

NOTE: PROPERTY AREA FOR OPEN SPACE IS THE TOTAL OF LOT 1 AND OUTLOT E WHICH ARE UTILIZED FOR THE FLEET FARM DEVELOPMENT.

PARKING REQUIREMENTS (PER CITY CODE)

TYPE	UNIT / AREA	STALLS REQUIRED	STALLS PROVIDED
RETAIL (4 STALLS / 1,000 SF)	161,000	644	646
CAR WASH (2 STALLS / 1,000 SF)	2,537	5	5
C-STORE (5 STALLS / 1,000 SF)	4,295	21	33 (16 PUMP STALLS)
	TOTAL:	**671**	**684**
ADA STALLS MAIN BUILDING	2% OF TOTAL	13	14
ADA STALLS FOR C-STORE	26-50 STALLS	2	2

SETBACKS

	PARKING	BUILDING
FRONT YARD		0'-0"
SIDE YARD		0'-0"
REAR YARD		0'-0"

PAVEMENT LEGEND

SYMBOL	DESCRIPTION
	6" CONCRETE PAVEMENT
	7" HEAVY DUTY CONCRETE PAVEMENT
	4" CONCRETE SIDEWALK
	6" TURN DOWN CONCRETE WALK
	REVERSE PITCH CONCRETE CURB & GUTTER

NOTES:

1. SEE SHEET C0-20 FOR SHEET LAYOUT
2. ALL ON SITE STREETS AND UTILITIES ARE PRIVATE

N

0 80 160
SCALE IN FEET

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
04/24/19	REVISED PER RFI #1	WMS

PROJECT NO.	18-22306
FILE NAME	22306 SITE
DRAWN BY	PJJ
DESIGNED BY	PJJ
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (OVERALL)

SHEET

C3-10

PAVEMENT LEGEND

SYMBOL	DESCRIPTION
	6" CONCRETE PAVEMENT
	7" HEAVY DUTY CONCRETE PAVEMENT
	4" CONCRETE SIDEWALK
	6" TURN DOWN CONCRETE WALK
	REVERSE PITCH CONCRETE CURB & GUTTER

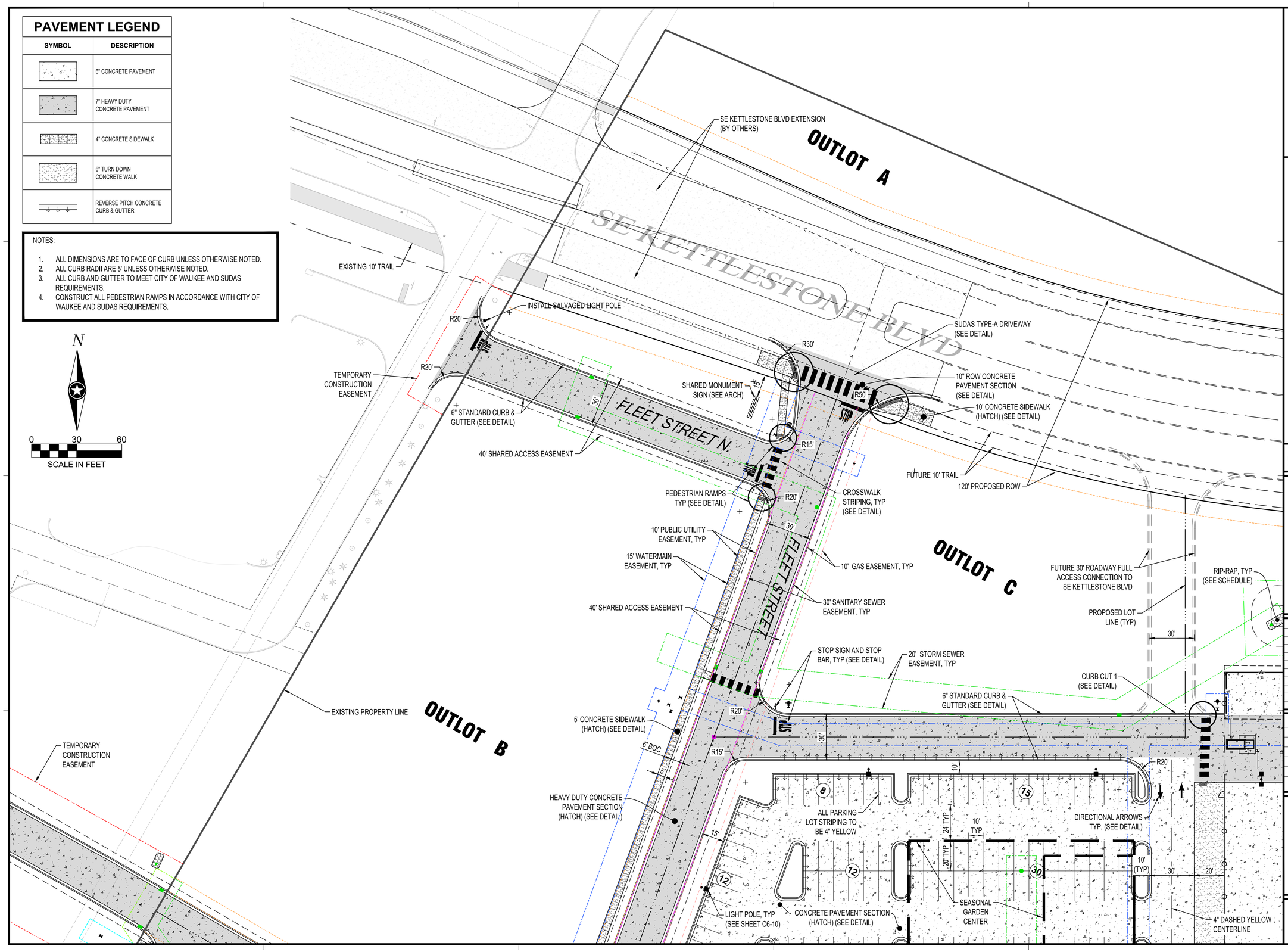
NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
3. ALL CURB AND GUTTER TO MEET CITY OF WAUKEE AND SUDAS REQUIREMENTS.
4. CONSTRUCT ALL PEDESTRIAN RAMPS IN ACCORDANCE WITH CITY OF WAUKEE AND SUDAS REQUIREMENTS.

N

0 30 60

SCALE IN FEET



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS
05/29/19	CCD #4-C	JMF

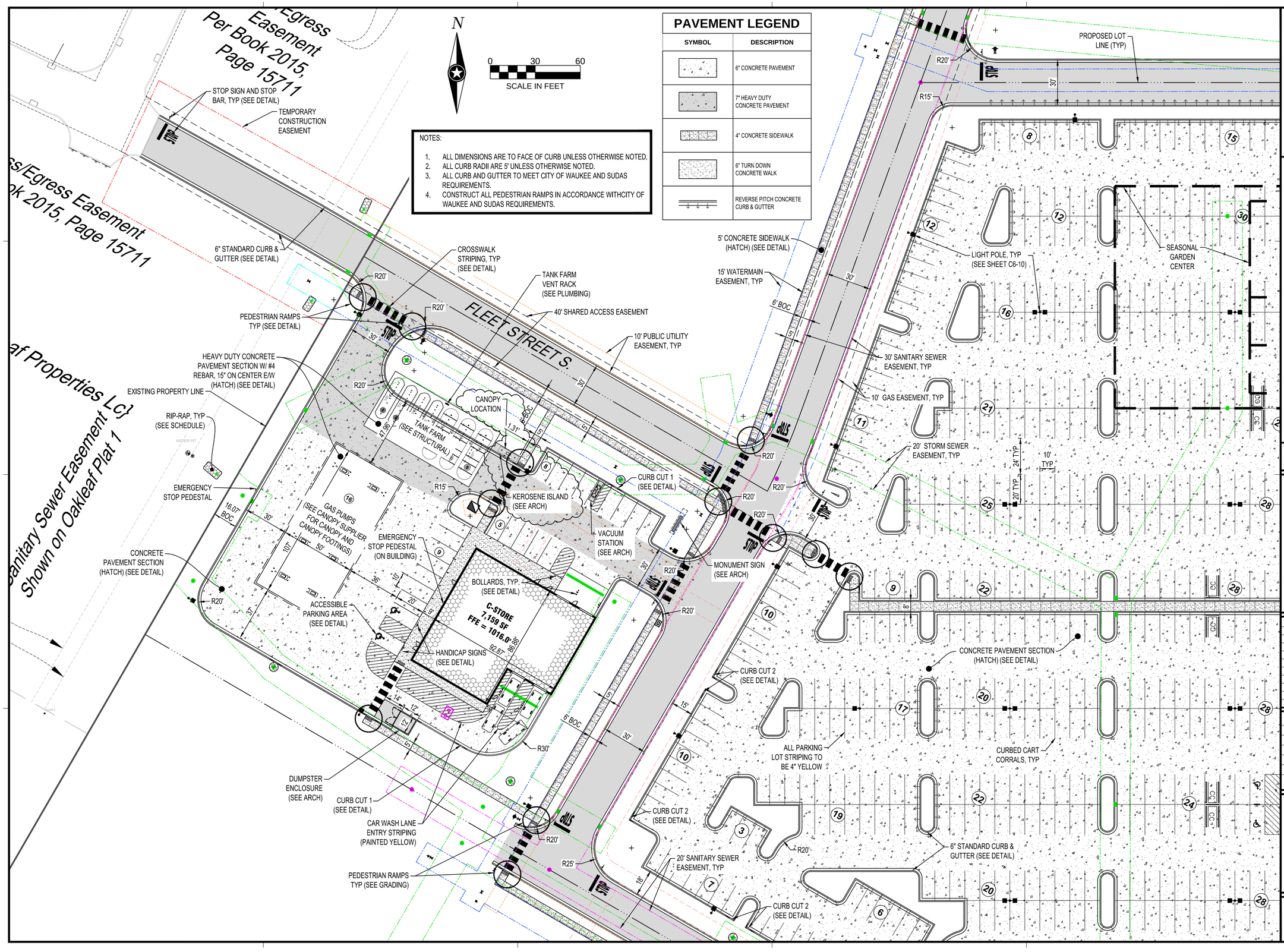
PROJECT NO.	18-22306
FILE NAME	22306 SITE
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (NORTHWEST)

SHEET

C3-11



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
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03/26/19	REVISED PER CITY REVIEW #4	AJR
05/29/19	CCD #4-C	JMF
07/17/19	CCD #5-C	JMF
09/04/19	CCD #7-C	JMF

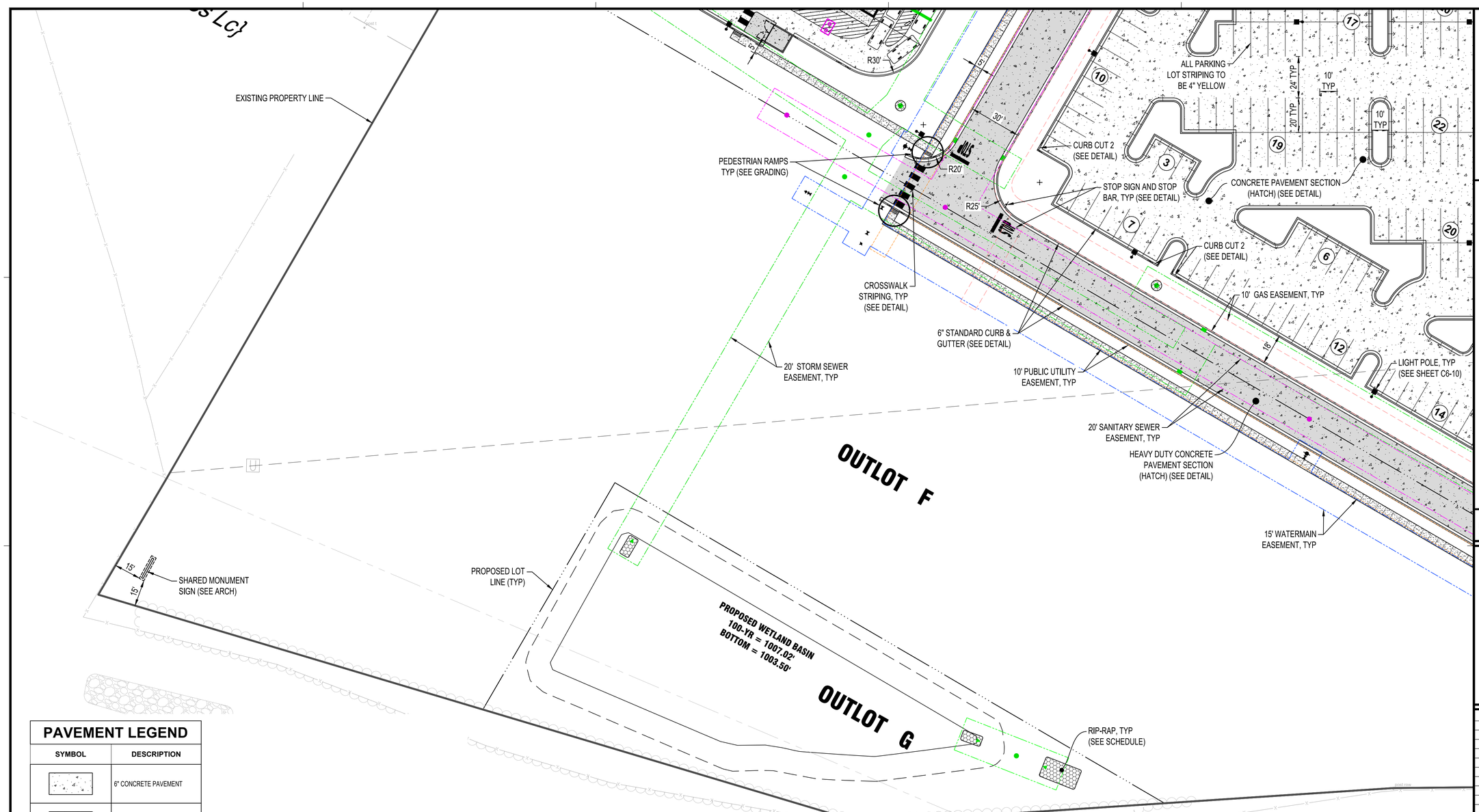
PROJECT NO.	18-22306
FILE NAME	22306 SITE
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (WEST)

SHEET

C3-12



PAVEMENT LEGEND

SYMBOL	DESCRIPTION
	6" CONCRETE PAVEMENT
	7" HEAVY DUTY CONCRETE PAVEMENT
	4" CONCRETE SIDEWALK
	6" TURN DOWN CONCRETE WALK
	REVERSE PITCH CONCRETE CURB & GUTTER

NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
3. ALL CURB AND GUTTER TO MEET CITY OF WAUKEE AND SUDAS REQUIREMENTS.
4. CONSTRUCT ALL PEDESTRIAN RAMPS IN ACCORDANCE WITH CITY OF WAUKEE AND SUDAS REQUIREMENTS.

N

0 30 60

SCALE IN FEET

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
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05/29/19	CCD #4-C	JMF

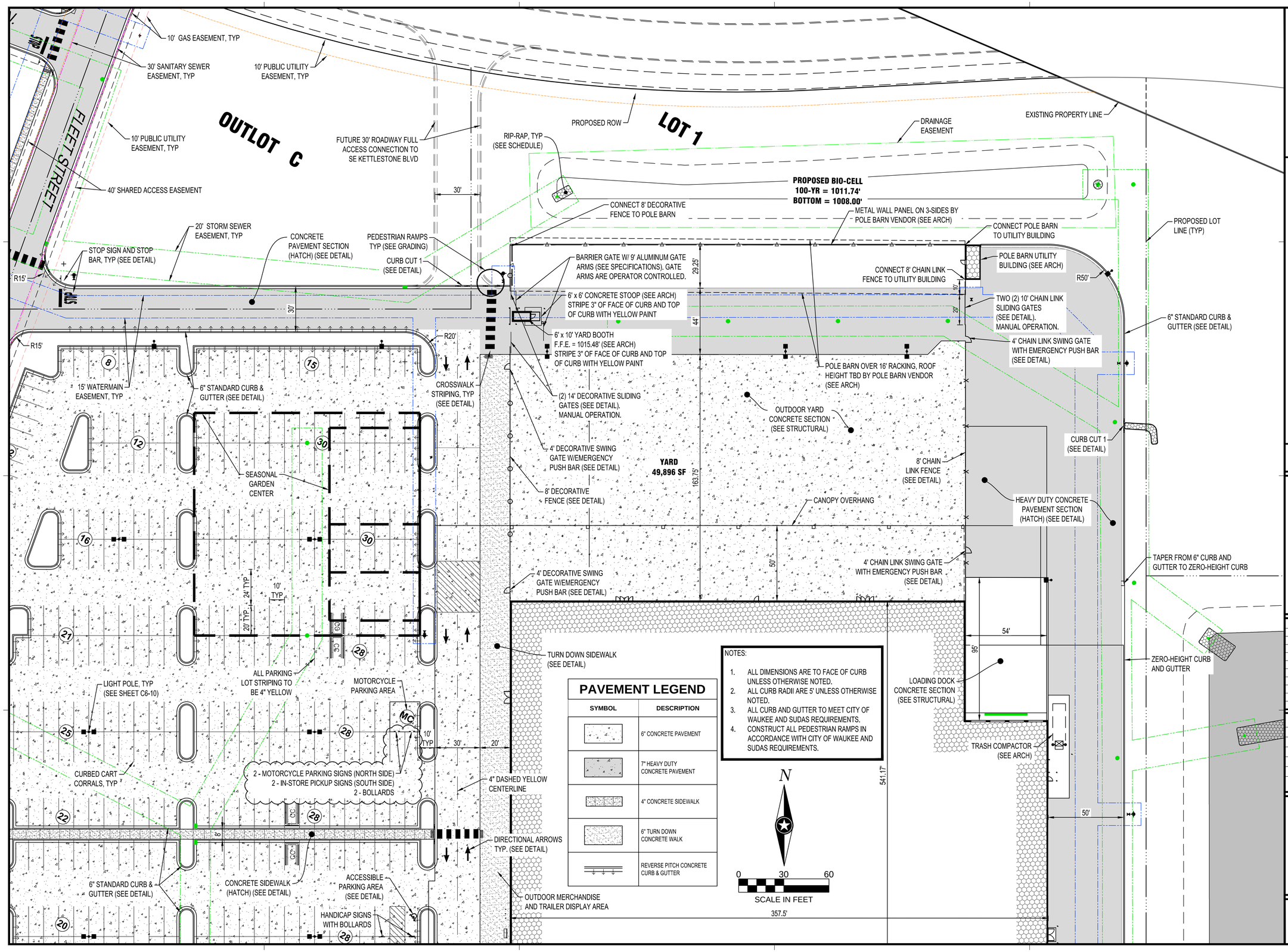
PROJECT NO.	18-22306
FILE NAME	22306 SITE
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (SOUTHWEST)

SHEET

C3-13



PAVEMENT LEGEND

SYMBOL	DESCRIPTION
	6" CONCRETE PAVEMENT
	7" HEAVY DUTY CONCRETE PAVEMENT
	4" CONCRETE SIDEWALK
	6" TURN DOWN CONCRETE WALK
	REVERSE PITCH CONCRETE CURB & GUTTER

NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
3. ALL CURB AND GUTTER TO MEET CITY OF WAUKEE AND SUDAS REQUIREMENTS.
4. CONSTRUCT ALL PEDESTRIAN RAMPS IN ACCORDANCE WITH CITY OF WAUKEE AND SUDAS REQUIREMENTS.

N

0 30 60

SCALE IN FEET

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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05/29/19	CCD #4-C	JMF
07/17/19	CCD #5-C	PJJ
08/07/19	CCD #6-C	WMS
09/04/19	CCD #7-C	LFO
10/09/19	CCD #8-C	PJJ

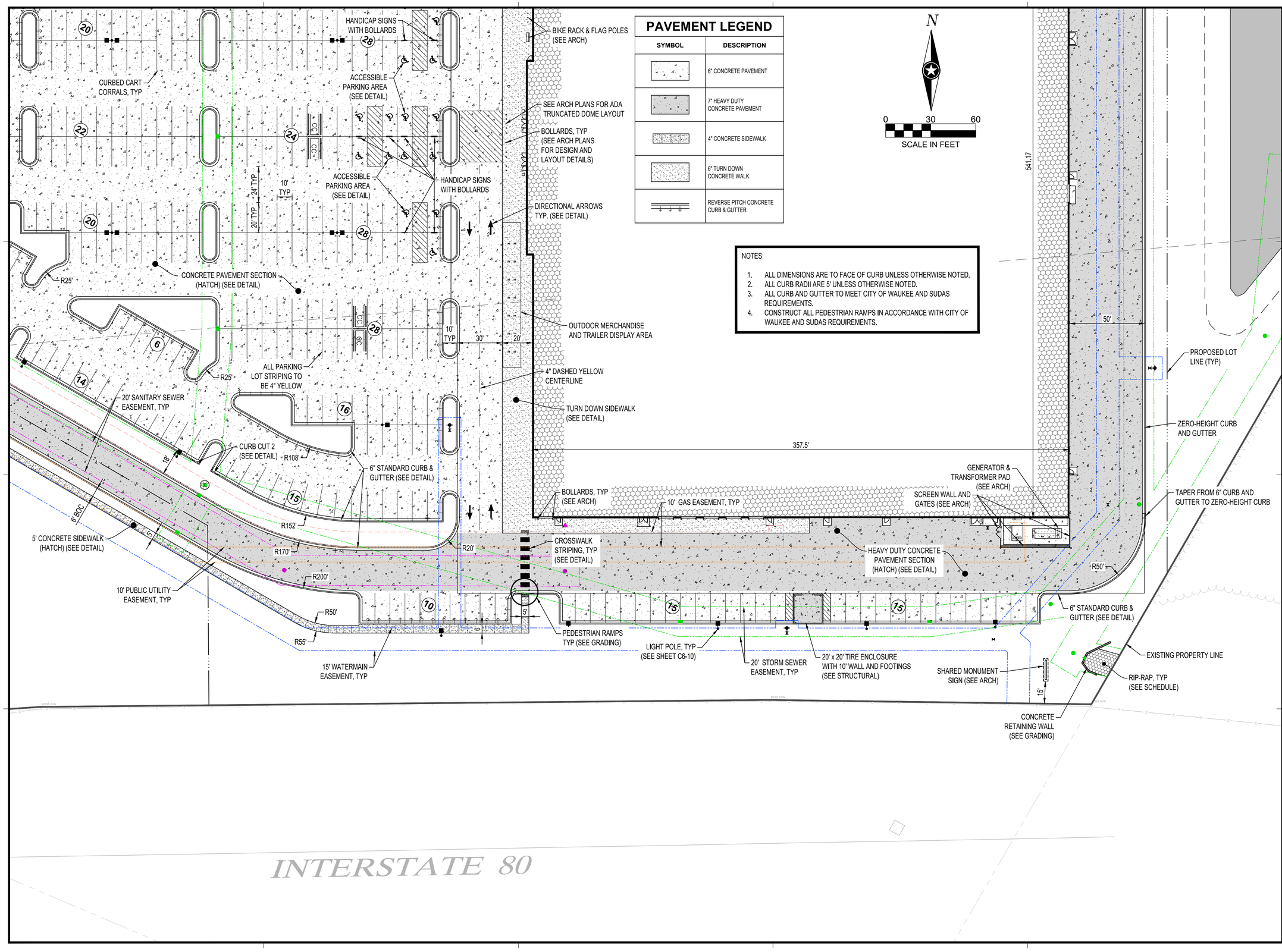
PROJECT NO.	18-22306
FILE NAME	22306 SITE
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (NORTH)

SHEET

C3-14



PAVEMENT LEGEND

SYMBOL	DESCRIPTION
	6" CONCRETE PAVEMENT
	7" HEAVY DUTY CONCRETE PAVEMENT
	4" CONCRETE SIDEWALK
	6" TURN DOWN CONCRETE WALK
	REVERSE PITCH CONCRETE CURB & GUTTER

N

0 30 60

SCALE IN FEET

NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
3. ALL CURB AND GUTTER TO MEET CITY OF WAUKEE AND SUDAS REQUIREMENTS.
4. CONSTRUCT ALL PEDESTRIAN RAMPS IN ACCORDANCE WITH CITY OF WAUKEE AND SUDAS REQUIREMENTS.

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PROJECT

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HURD REALTY

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ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (SOUTH)

SHEET

C3-15

PAVEMENT LEGEND

SYMBOL	DESCRIPTION
	6" CONCRETE PAVEMENT
	7" HEAVY DUTY CONCRETE PAVEMENT
	4" CONCRETE SIDEWALK
	6" TURN DOWN CONCRETE WALK
	REVERSE PITCH CONCRETE CURB & GUTTER

N

0 30 60

SCALE IN FEET

NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
3. ALL CURB AND GUTTER TO MEET CITY OF WAUKEE AND SUDAS REQUIREMENTS.
4. CONSTRUCT ALL PEDESTRIAN RAMPS IN ACCORDANCE WITH CITY OF WAUKEE AND SUDAS REQUIREMENTS.

120' PROPOSED ROW

KETTLESTONE BLVD EXTENSION (BY OTHERS)

{Goodall, Charles F & Cher...

EXISTING PROPERTY LINE

OUTLOT D

OUTLOT E

PROPOSED WET POND
100-YR = 1005.28'
NWL = 1001.00'
BOTTOM = 995.00'

RIP-RAP, TYP (SEE SCHEDULE)

LIGHT POLE, TYP (SEE SHEET C6-10)

6" STANDARD CURB & GUTTER (SEE DETAIL)

20' STORM SEWER EASEMENT, TYP

PROPOSED LOT LINE (TYP)

TAPER FROM 6" CURB AND GUTTER TO ZERO-HEIGHT CURB

ZERO-HEIGHT CURB AND GUTTER

CURB CUT 1 (SEE DETAIL)

R50'

HEAVY DUTY CONCRETE PAVEMENT SECTION (HATCH) (SEE DETAIL)

50'

10' PUBLIC UTILITY EASEMENT, TYP

15' WATERMAIN EASEMENT, TYP

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PROJECT

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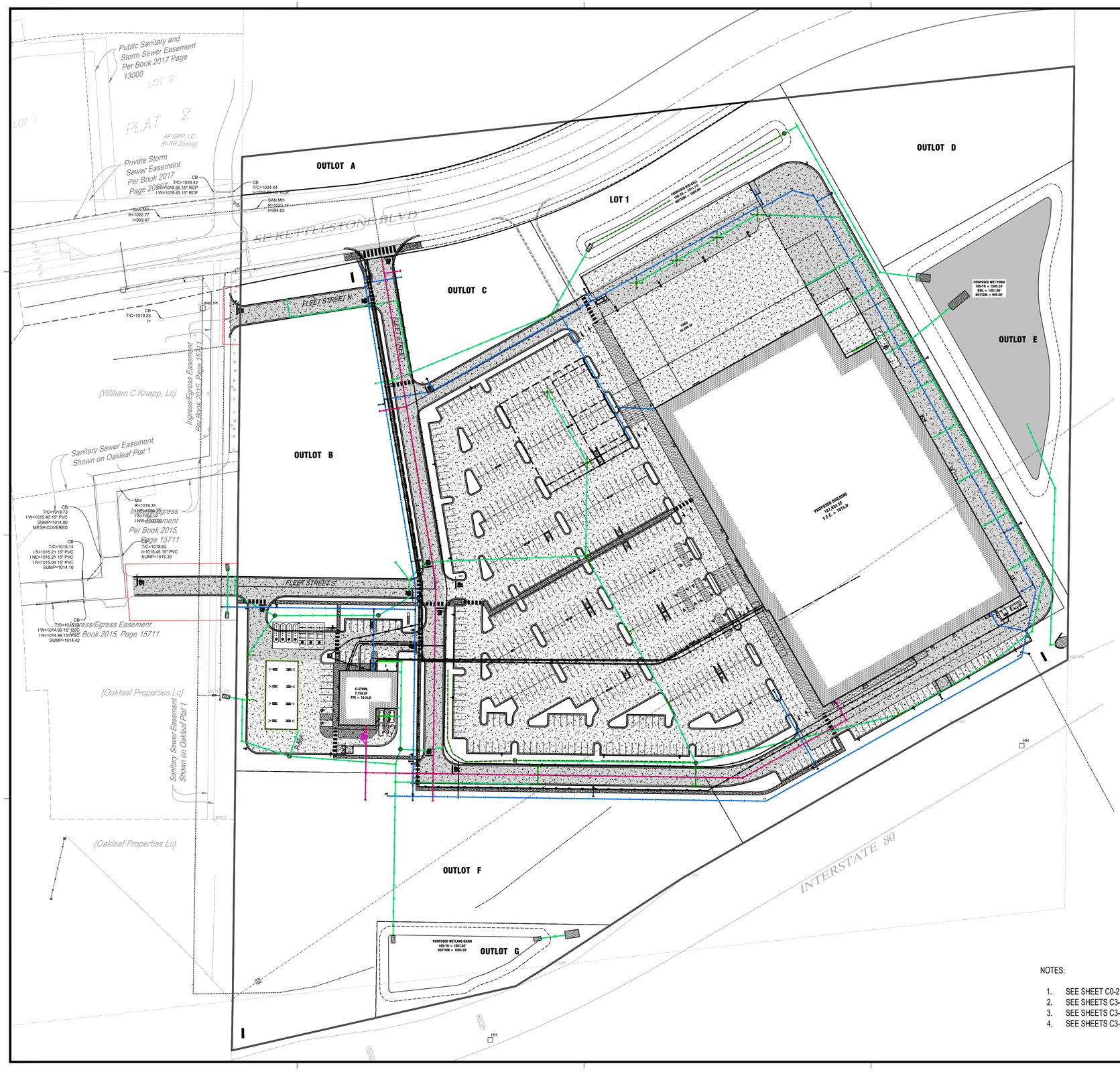
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DRAWN BY	AJR
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ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE PLAN (EAST)

SHEET

C3-16



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-30 - C3-33 FOR SANITARY SEWER PROFILES
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

N

0 80 160

SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

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04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE UTILITY PLAN (OVERALL)

SHEET

C3-20

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-30 - C3-33 FOR SANITARY SEWER PROFILES
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES
5. FES-30 AND ALL UPSTREAM STORM SEWER ARE TO REMAIN OFFLINE UNTIL THE BIO-CELL AND UPSTREAM AREAS HAVE STABILIZED. IF PROJECT SCHEDULE DOES NOT ALLOW FOR THIS PHASING P-30 IS TO BE PLUGGED UNTIL REQUIREMENTS ARE MET.

N

0 30 60

SCALE IN FEET

NOTES
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

#	UTILITY CROSSING SCHEDULE
1	WATER OVER SANITARY WATER (BOT=10015.24) SANITARY (TOP=1000.57)
2	STORM OVER SANITARY STORM (BOT=1015.65) SANITARY (TOP=1000.70)
3	STORM OVER WATER STORM (BOT=1015.82) WATER (TOP=1014.32)
4	STORM OVER WATER STORM (BOT=1015.18) WATER (TOP=1013.68)
5	STORM OVER SANITARY STORM (BOT=1015.40) SANITARY (TOP=1001.08)
6	WATER OVER SANITARY WATER (BOT=1012.57) SANITARY (TOP=1001.17)
7	WATER OVER SANITARY WATER (BOT=1013.57) SANITARY (TOP=1009.90)

SAN MH R=1022.77 I=993.47

CB T/C=1024.42 I E=1019.65 15" RCP I W=1019.45 15" RCP

CB T/C=1024.44 I=1019.80 15" RCP

EXISTING 15" SANITARY SEWER

SAN MH R=1023.13 I=994.63

15" SANITARY SEWER (BY OTHERS)

OUTLOT A

SANITARY MANHOLE R=1023.85 (ESTIMATED) INV (S) 8" PVC= 998.85 (BY OTHERS)

EXISTING 12" WATERMAIN

CB T/C=1019.23 I=

temp. hh

TEMPORARY CONSTRUCTION EASEMENT

12" WATERMAIN (BY OTHERS)

8" SANITARY STUB @ 0.40% (BY OTHERS)

RELOCATE SALVAGED LIGHT POLE

SE KETTLESTONE BLVD

A-35 R=1020.40 I=1017.04 (P-35)

R=1019.70 I (P-35) = 1016.80

P-35 30'x12" RCP @ ~~0.50%~~ 29 0.86

12" WATER STUB (BY OTHERS)

CONNECT TELEPHONE, FIBER, UNDERGROUND ELECTRIC AND GAS LINES (CONTRACTOR TO COORDINATE CONNECTIONS WITH UTILITY COMPANIES)

{William C Knapp, Lc}

Ingress/Egress Easement Per Book 2015, Page 15711

FLEET STREET N.

A-34 R=1020.40 I=1016.69 (P-35) I=1016.69 (P-34)

R=1019.75 I(P-35)=1016.55 I(P-34)=1016.45

P-34 171'x12" RCP @ 0.52%

0.68%

DATA & COMMUNICATION SERVICES VAULT (SEE DETAIL)

A-33 R=1020.84 I=1015.81 (P-34) I=1015.61 (P-33)

R=1020.80 I(P-34)=1015.32 I(P-33)=1015.29

FLEET STREET

P-33 115'x12" RCP @ 0.53% 0.57%

OUTLOT C

12" WATER

P-32 ~~31~~'x15" RCP @ ~~0.45%~~ 30 0.53

SEE SHEET C0-21 FOR RIP RAP SCHEDULE

A-32 R=~~1019.70~~ I=~~1015.34 (P-32A)~~ I=~~1015.14 (P-32)~~

R=1019.12 I (P-32A) = 1015.22 I (P-32) = 1014.82

A-31 R=~~1019.90~~ I=~~1015.00 (P-33)~~ I=~~1014.80 (P-31)~~ I=~~1015.00 (P-32)~~

R=1018.96 I (P-33) = 1014.66 I (P-31) = 1014.26 I (P-32) = 1014.66

I = 1008.25

FES-30 I=~~1008.00~~

AREA INLET SUBDRAIN, TYP. (SEE DETAIL)

UNABLE TO VERIFY

15" PLUG

P-32A 28'x15" RCP @ 0.52%

R=1013.83 I (P-31) = 1009.53 I (P-30) = 1009.43

A-30 R=~~1014.46~~ I=~~1010.46 (P-31)~~ I=~~1009.96 (P-30)~~

241'

P-31 240'x18" RCP @ ~~1.81%~~ 1.97%

P-30 116'x24" RCP @ ~~1.86%~~ 1.00%

8" WATER

ABANDONED 4" WATER SERVICE

OUTLOT B

8" SANITARY

DATA & COMMUNICATION SERVICES 4" CONDUIT (2)

8" WATER

40' ACCESS EASEMENT

A-29A R=~~1014.30~~ I=~~1008.75 (P-29A)~~

EXISTING 8" WATERMAIN

TEMPORARY CONSTRUCTION EASEMENT

FES-25A I=1013.85

A-21 R=~~1017.18~~ I=~~1013.18 (P-21)~~

P-21 26'x12" RCP @ 0.50%

A-20 R=~~1017.19~~ I=~~1013.04 (P-21)~~ I=~~1012.04 (P-20)~~

A-18 R=~~1012.20~~

R=1012.51 I (P-12) =1008.91

A-12 R=~~1012.62~~ I=~~1009.12 (P-12)~~

AREA INLET SUBDRAIN, TYP. (SEE DETAIL)

0.50%

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PROJECT

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WAUKEE IOWA

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DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
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05/29/19	CCD #4-C	JMF

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
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CLIENT PROJECT NO.	-

TITLE

SITE UTILITY PLAN (NORTHWEST)

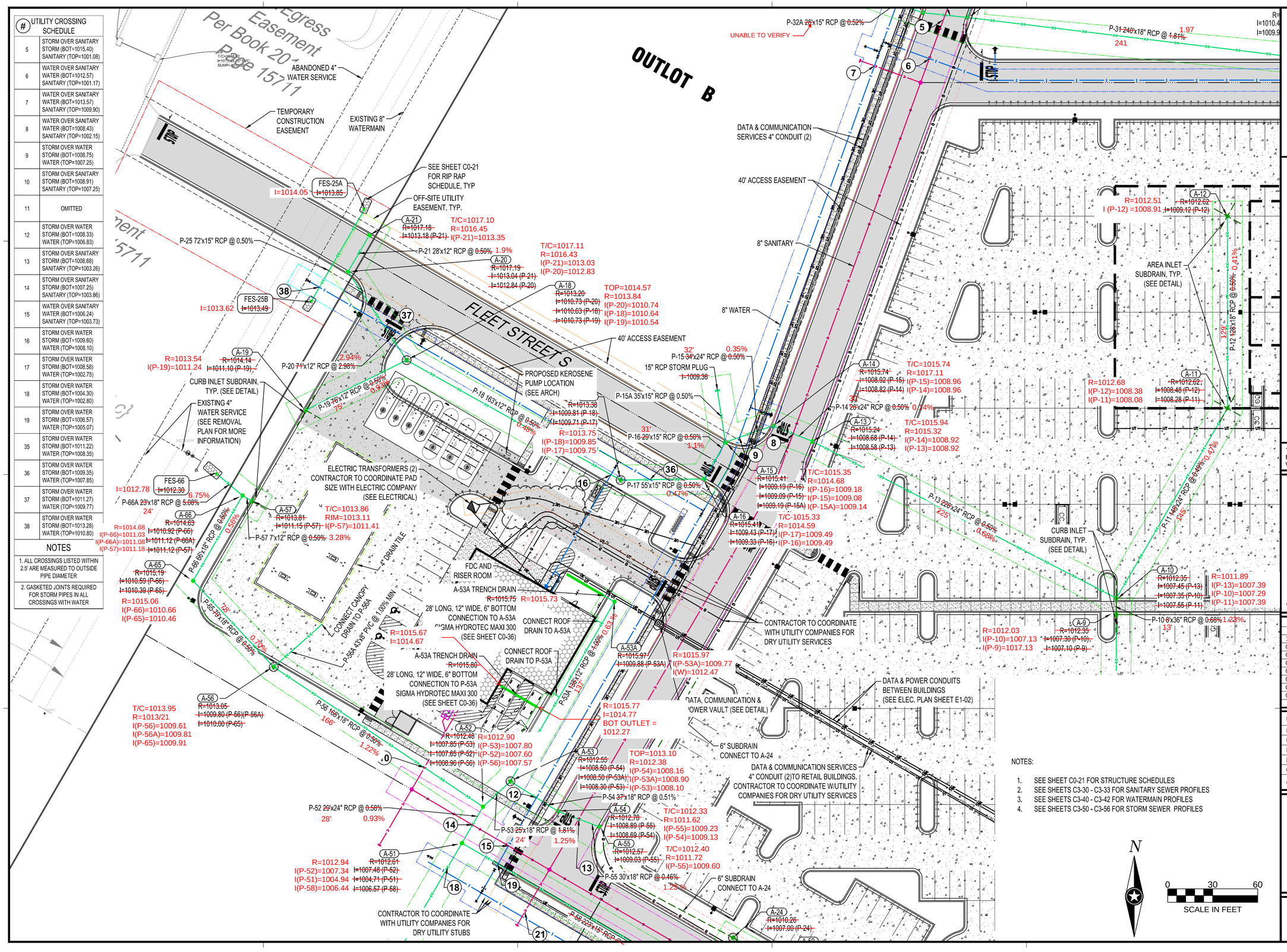
SHEET

C3-21

#	UTILITY CROSSING SCHEDULE
5	STORM OVER SANITARY STORM (BOT=1015.40) SANITARY (TOP=1001.08)
6	WATER OVER SANITARY WATER (BOT=1012.57) SANITARY (TOP=1001.17)
7	WATER OVER SANITARY WATER (BOT=1013.57) SANITARY (TOP=1009.90)
8	WATER OVER SANITARY WATER (BOT=1008.43) SANITARY (TOP=1002.15)
9	STORM OVER WATER STORM (BOT=1008.75) WATER (TOP=1007.25)
10	STORM OVER SANITARY STORM (BOT=1008.91) SANITARY (TOP=1007.25)
11	OMITTED
12	STORM OVER WATER STORM (BOT=1008.33) WATER (TOP=1006.83)
13	STORM OVER SANITARY STORM (BOT=1008.68) SANITARY (TOP=1003.26)
14	STORM OVER SANITARY STORM (BOT=1007.25) SANITARY (TOP=1003.86)
15	WATER OVER SANITARY WATER (BOT=1006.24) SANITARY (TOP=1003.73)
16	STORM OVER WATER STORM (BOT=1009.60) WATER (TOP=1008.10)
17	STORM OVER WATER STORM (BOT=1008.58) WATER (TOP=1002.75)
18	STORM OVER WATER STORM (BOT=1004.30) WATER (TOP=1002.80)
19	STORM OVER WATER STORM (BOT=1006.57) WATER (TOP=1005.07)
35	STORM OVER WATER STORM (BOT=1011.22) WATER (TOP=1008.35)
36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)
37	STORM OVER WATER STORM (BOT=1011.27) WATER (TOP=1009.77)
38	STORM OVER WATER STORM (BOT=1013.28) WATER (TOP=1010.80)

NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-30 - C3-33 FOR SANITARY SEWER PROFILES
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

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PROJECT

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05/29/19	CCD #4-C	JMF
09/04/19	CCD #7-C	LFO

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TITLE

SITE UTILITY PLAN (WEST)

SHEET

C3-22

#	UTILITY CROSSING SCHEDULE
12	STORM OVER WATER STORM (BOT=1008.33) WATER (TOP=1006.83)
13	STORM OVER SANITARY STORM (BOT=1008.68) SANITARY (TOP=1003.26)
14	STORM OVER SANITARY STORM (BOT=1007.25) SANITARY (TOP=1003.86)
15	WATER OVER SANITARY WATER (BOT=1006.24) SANITARY (TOP=1003.73)
16	STORM OVER WATER STORM (BOT=1009.60) WATER (TOP=1008.10)
17	STORM OVER WATER STORM (BOT=1008.58) WATER (TOP=1002.75)
18	STORM OVER WATER STORM (BOT=1004.30) WATER (TOP=1002.80)
19	STORM OVER WATER STORM (BOT=1006.57) WATER (TOP=1005.07)
20	STORM OVER SANITARY STORM (BOT=1007.80) SANITARY (TOP=1004.14)
21	WATER OVER SANITARY WATER (BOT=1006.50) SANITARY (TOP=1003.70)
34	STORM OVER STORM STORM (BOT=1007.40) STORM (TOP=1006.00)
35	STORM OVER WATER STORM (BOT=1011.22) WATER (TOP=1008.35)
36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)

NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

A-50
~~R=1013.05~~
~~I=1009.80~~ (P-56)(P-56A)
~~I=1010.00~~ (P-65)

P-56 166'x18" RCP @ ~~0.50%~~ 1.22%
166'

A-52
~~R=1012.48~~
~~I=1007.65 (P-53)~~
~~I=1007.65 (P-52)~~
~~I=1008.96 (P-56)~~
R=1012.90
I(P-53)=1007.80
I(P-52)=1007.60
I(P-56)=1008.96

P-52 29'x24" RCP @ ~~0.58%~~

A-53
~~R=1012.55~~
~~I=1008.50 (P-54)~~
~~I=1008.50 (P-53A)~~
~~I=1008.30 (P-53)~~
R=1012.38
I(P-53)=1008.10
I(P-53A)=1008.90
I(P-54)=1008.50

P-54 37'x15" RCP @ 0.57%

DATA & POWER CONDUITS BETWEEN BUILDINGS (SEE ELEC. PLANS)

A-54
~~R=1012.79~~
~~I=1008.89 (P-55)~~
~~I=1008.69 (P-54)~~
R=1011.62
I(P-55)=1009.23
I(P-54)=1009.13

DATA & COMMUNICATION SERVICES 4" CONDUIT (2) CONTRACTOR TO COORDINATE W/UTILITY COMPANIES FOR FIBER AND TELEPHONE SERVICES

P-53 25'x18" RCP @ ~~1.81%~~ 1.25%
24'

A-55
~~R=1012.57~~
~~I=1009.03 (P-55)~~
R=1011.72
I(P-55)=1009.60

P-55 30'x18" RCP @ 0.46%

A-51
~~R=1012.61~~
~~I=1007.48 (P-52)~~
~~I=1004.71 (P-51)~~
~~I=1006.57 (P-58)~~
R=1012.94
I(P-52)=1007.34
I(P-51)=1004.94
I(P-58)=1006.44

6" SUBDRAIN CONNECT TO A-24

A-24
~~R=1010.26~~
~~I=1007.00 (P-24)~~
R=1010.58
I(P-24)=1006.63
I(W)=1009.08

A-59
~~R=1011.13~~
~~I=1008.16 (P-59)~~
R=1010.54
I(P-59)=1008.04
I(W)=1008.94
I(E)=1008.94

P-58 223'x15" RCP @ 0.55%
226'

P-59 30'x12" RCP @ 0.46% 0.50 %

6" SUBDRAIN CONNECT TO A-24

P-51 249'x24" RCP @ ~~0.58%~~ 0.55%
245'

P-24 285'x15" RCP @ ~~0.58%~~ 0.49%
284'

CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR DRY UTILITY STUBS

8" WATER

8" SANITARY

A-58
~~R=1011.13~~
~~I=1008.02 (P-59)~~
~~I=1007.82 (P-58)~~
R=1010.49
I(P-59)=1007.89
I(P-58)=1007.69
I(S)=1008.49

OUTLOT F

EXISTING 4" WATER SERVICE TO BE ABANDONED (SEE REMOVAL PLAN FOR MORE INFORMATION)

FES-51
~~I=1003.50~~ I=1003.55

SEE SHEET C0-21 FOR RIP RAP SCHEDULE, TYP

PROPOSED WETLAND BASIN
100-YR = 1007.02'
BOTTOM = 1003.50'

EXISTING 4" WATER SERVICE TO BE ABANDONED (SEE REMOVAL PLAN FOR MORE INFORMATION)

A-22
R=1011.4
I=1006.71 (P-22
I=1007.69 (P-23

OUTLOT

26'
P-61A ~~25~~'x24" RCP @ ~~0.20%~~ 1.32 %

FES-61
I=1003.72 ~~I=1003.50~~

P-60 19'x24" RCP @ ~~0.20%~~ 0.44 %

FES-60
~~I=1003.31~~ I=1003.21

A-61
SEE DETAIL
~~R=1008.03~~
~~I=1003.45 (P-61A)~~
~~I=1003.35 (P-60)~~
R=1008.69
I(P-61A)=1003.39
I(P-60)=1003.29

N

0 30 60

SCALE IN FEET

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-30 - C3-33 FOR SANITARY SEWER PROFILES
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/18	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
05/29/19	CCD #4-C	JMF

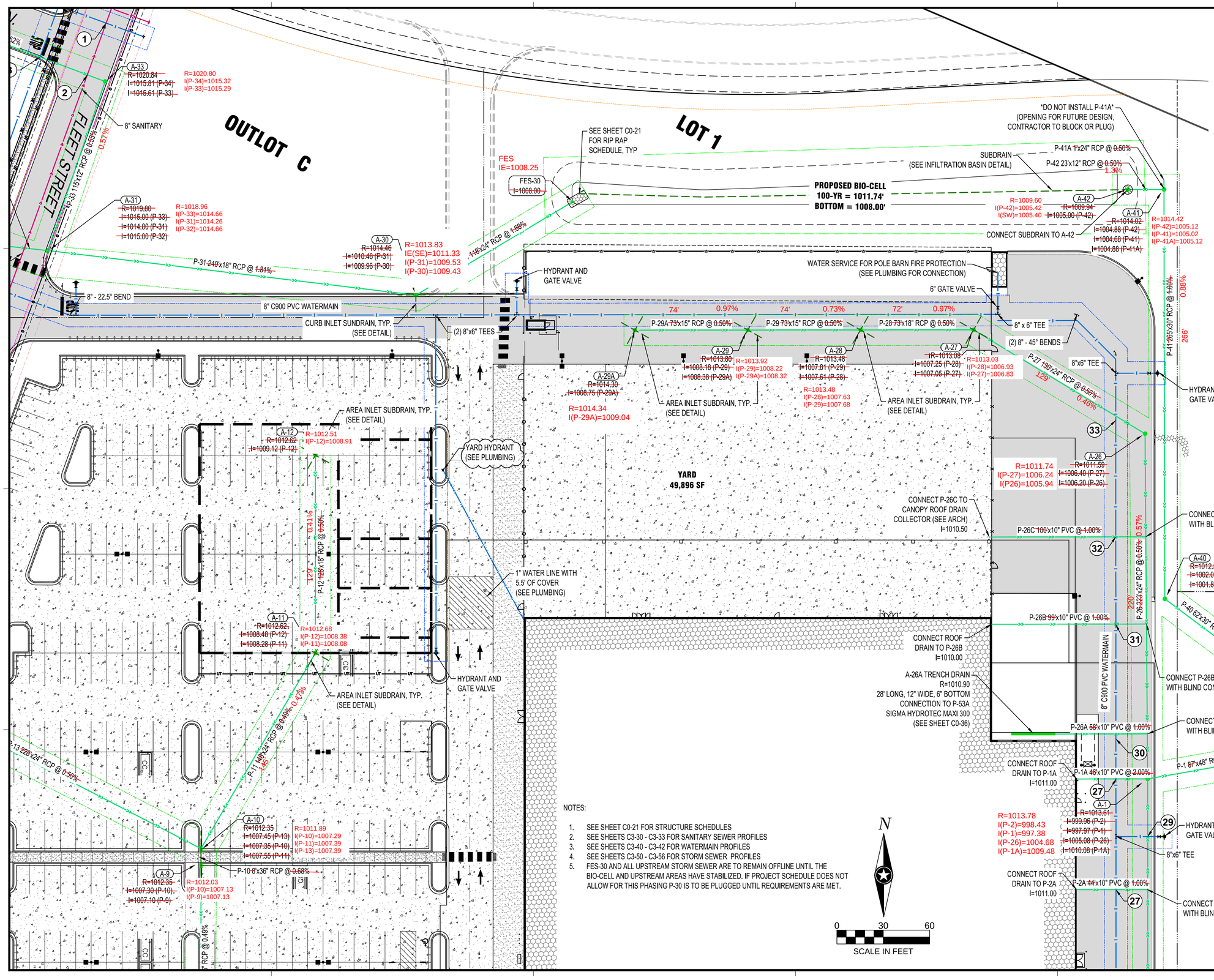
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE UTILITY PLAN (SOUTHWEST)

SHEET

C3-23



#	UTILITY CROSSING SCHEDULE
1	WATER OVER SANITARY WATER (BOT=10015.24) SANITARY (TOP=1000.57)
2	STORM OVER SANITARY STORM (BOT=1015.65) SANITARY (TOP=1000.70)
3	STORM OVER WATER STORM (BOT=1015.82) WATER (TOP=1014.32)
27	STORM OVER WATER STORM (BOT=1010.50) WATER (TOP=1008.00)
28	WATER OVER STORM WATER (BOT=1007.50) STORM (TOP=1003.50)
29	WATER OVER STORM WATER (BOT=1006.90) STORM (TOP=1004.10)
30	STORM OVER WATER STORM (BOT=1007.70) WATER (TOP=1006.20)
31	STORM OVER WATER STORM (BOT=1010.20) WATER (TOP=1008.70)
32	STORM OVER WATER STORM (BOT=1009.70) WATER (TOP=1008.20)
33	STORM OVER WATER STORM (BOT=1006.17) WATER (TOP=1004.67)

NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS
05/29/19	CCD #4-C	JMF
09/04/19	CCD #7-C	LFO

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE UTILITY PLAN (NORTH)

SHEET

C3-24

#	UTILITY CROSSING SCHEDULE
22	STORM OVER SANITARY STORM (BOT=1007.60) SANITARY (TOP=1005.85)
23	SANITARY OVER WATER SANITARY (BOT=1008.00) WATER (TOP=1006.50)
24	STORM OVER WATER STORM (BOT=1003.34) WATER (TOP=1001.84)
25	SANITARY OVER STORM SANITARY (BOT=1008.66) STORM (TOP=1008.16)
26	STORM OVER WATER STORM (BOT=1001.14) WATER (TOP=999.64)
27	STORM OVER WATER STORM (BOT=1010.50) WATER (TOP=1008.00)
28	WATER OVER STORM WATER (BOT=1007.50) STORM (TOP=1003.50)

NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

N

0 30 60

SCALE IN FEET

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-30 - C3-33 FOR SANITARY SEWER PROFILES
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

CURB INLET SUBDRAIN, TYP. (SEE DETAIL)

A-8 R=1012.23 I(P-9)=1006.33 I(P-8)=1006.23 ~~R=1012.15 I=1006.47 (P-9) I=1006.27 (P-8)~~

DATA & POWER CONDUITS BETWEEN BUILDINGS (SEE ELEC. PLANS)

DATA CONDUITS BETWEEN BUILDINGS (SEE ELEC. PLANS E1-02 & E3-60)

DATA & COMMUNICATION SERVICES 4" CONDUIT (2), CONTRACTOR TO COORDINATE W/UTILITY COMPANIES FOR FIBER AND TELEPHONE SERVICES

POWER CONDUITS BETWEEN BUILDINGS (SEE ELEC. PLANS E1-02 & E3-60)

CURB INLET SUBDRAIN, TYP. (SEE DETAIL)

A-7 R=1011.52 I(P-8)=1005.52 I(P-7)=1005.32 ~~R=1011.97 I=1005.63 (P-8) I=1005.43 (P-7)~~

6" SUBDRAIN CONNECT TO A-6

HYDRANT AND GATE VALVE

A-6 R=1011.18 I(P-7)=1004.58 I(P-6)=1004.38 I(P-22)=1006.18 I(P-24)=1004.68 ~~R=1010.00 I=1004.92 (P-7) I=1004.72 (P-6) I=1006.45 (P-22) I=1005.57 (P-24)~~

CURB INLET SUBDRAIN, TYP. (SEE DETAIL)

6" WATERMAIN

CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR GAS AND ELECTRIC SERVICES

WPIV, FDC AND FIRE RISER ROOM (SEE PLUMBING)

4" DOMESTIC WATER SERVICE TO 5' FROM BUILDING, CONNECTION INTO BUILDING BY MECHANICAL CONTRACTOR

8" FIRE PROTECTION SERVICE TO 5' FROM BUILDING, CONNECTION INTO BUILDING BY MECHANICAL CONTRACTOR

P-1 499x36" RCP @ 0.48% 0.63%

P-3 499x36" RCP @ 0.59% 0.55%

P-7 164x36" RCP @ 0.49% 0.71%

P-22 8'x15" RCP @ 3.42% 0.25%

P-23 29'x12" RCP @ 0.98% 1.00%

P-6 330'x48" RCP @ 0.50% 0.49%

P-5 166'x48" RCP @ 0.50% 0.55%

P-4 81'x48" RCP @ 0.25% 0.24%

P-3 89'x48" RCP @ 0.25% 0.88%

P-2 428'x48" RCP @ 0.25% 0.44%

P-1 248'x42" RCP @ 1.45% 1.61%

P-71A 109'x42" RCP @ 1.45% 1.61%

A-22 R=1011.46 ~~I=1006.71 (P-22) I=1007.69 (P-23)~~

A-23 R=1011.46 ~~I=1007.98 (P-23)~~

R=1010.86 I(P-22)=1006.16 I(P-23)=1007.36 I(P-E)=1008.16 I(P-W)=1008.16

R=1010.86 I(P-23)=1007.66 I(P-W)=1008.26 I(P-E)=1008.56

8" 22.5° BEND

8" x 6" TEE

8" C900 PVC WATERMAIN

A-5 R=1012.47 I(P-6)=1002.74 I(P-5)=1002.64 ~~R=1013.34 I=1003.08 (P-6) I=1002.88 (P-5)~~

CURB INLET SUBDRAIN, TYP. (SEE DETAIL)

HYDRANT AND GATE VALVE

8" x 6" TEE

A-4 R=1012.72 I(P-5)=1001.72 I(P-4)=1001.72 ~~R=1013.36 I=1002.05 (P-5) I=1001.85 (P-4)~~

CURB INLET SUBDRAIN, TYP. (SEE DETAIL)

8" GATE VALVE

8" - 45° BEND

8"x8" TEE

8" - 45° BEND

~~1" WET TAP~~

~~1" SERVICE~~

~~CONNECT 1" SERVICE TO SALVAGED METER~~

NOT INSTALLED. THE EXISTING 4" WATER SERVICE COULD NOT BE FOUND IN THE FIELD.

~~CONNECT SALVAGED METER TO EXISTING 4" SERVICE USING A 4" TO 1" REDUCER (SEE REMOVAL PLAN FOR MORE INFORMATION)~~

EXISTING 4" WATER SERVICE

CONNECT ROOF DRAIN TO P-2B I=1011.00

P-2B 44'x10" PVC @ 1.00%

CONNECT P-2B TO P-2 WITH BLIND CONNECTION

CONNECT ROOF DRAIN TO P-2C I=1011.00

P-2C 44'x10" PVC @ 1.00%

CONNECT P-2C TO P-2 WITH BLIND CONNECTION

8" C900 PVC WATERMAIN

CONNECT ROOF DRAIN TO P-2D I=1011.00

P-2D 44'x10" PVC @ 1.00%

CONNECT P-2D TO P-2 WITH BLIND CONNECTION

HYDRANT AND GATE VALVE

8"x6" TEE

CONNECT ROOF DRAIN TO P-2E I=1011.00

P-2E 44'x10" PVC @ 1.00%

A-2 R=1013.55 I(P-3)=1000.55 I(P-2)=1000.35 ~~R=1013.56 I=1001.23 (P-3) I=1001.03 (P-2)~~

CONNECT P-2E TO P-2 WITH BLIND CONNECTION

8" GATE VALVE

8" x 4" TEE

8" - 45° BEND

4" CURB STOP

FES-71 ~~I=995.00~~ I=994.78

A-3 R=1012.72 I(P-4)=999.72 I(P-3)=999.72 ~~R=1014.41 I=1001.65 (P-4) I=1001.45 (P-3)~~

SEE SHEET C0-21 FOR RIP RAP SCHEDULE, TYP

00%

SEE SHEET C0-21 FOR RIP RAP SCHEDULE, TYP

~~I=995.25~~ I=995.08

A-70 R=1003.78 I(P-71)=996.28 I(P-70)=995.88 ~~R=1003.96 I=996.34 (P-71) I=995.34 (P-70)~~

INTERSTATE 80

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
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04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS
05/29/19	CCD #4-C	JMF
09/04/19	CCD #7-C	LFO

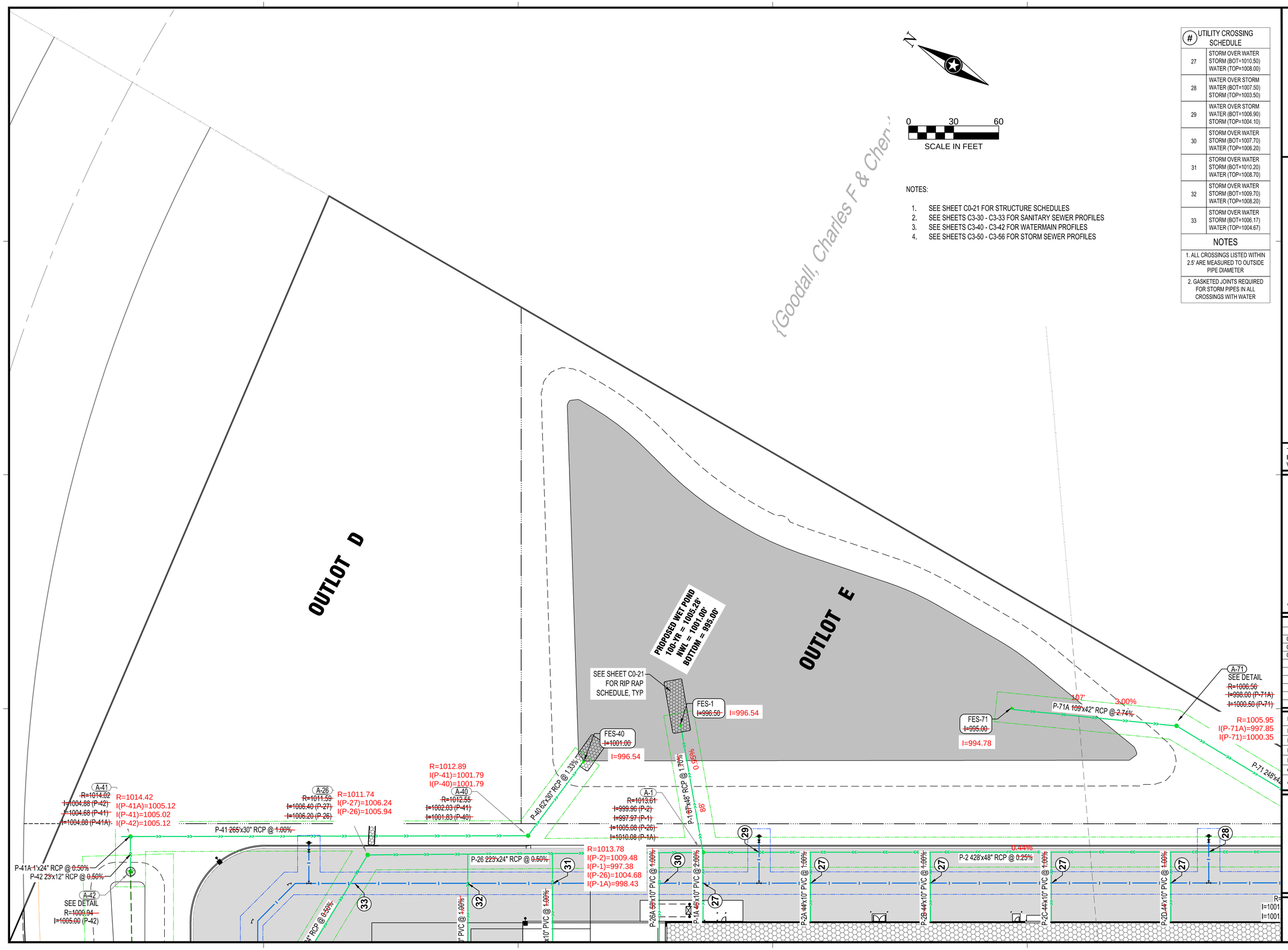
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE UTILITY PLAN (SOUTH)

SHEET

C3-25



{Goodall, Charles F & Cher

NORTH

0 30 60
SCALE IN FEET

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-30 - C3-33 FOR SANITARY SEWER PROFILES
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

#	UTILITY CROSSING SCHEDULE
27	STORM OVER WATER STORM (BOT=1010.50) WATER (TOP=1008.00)
28	WATER OVER STORM WATER (BOT=1007.50) STORM (TOP=1003.50)
29	WATER OVER STORM WATER (BOT=1006.90) STORM (TOP=1004.10)
30	STORM OVER WATER STORM (BOT=1007.70) WATER (TOP=1006.20)
31	STORM OVER WATER STORM (BOT=1010.20) WATER (TOP=1008.70)
32	STORM OVER WATER STORM (BOT=1009.70) WATER (TOP=1008.20)
33	STORM OVER WATER STORM (BOT=1006.17) WATER (TOP=1004.67)

NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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01/22/19	REVISED PER CITY REVIEW	AJR
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03/26/19	REVISED PER CITY REVIEW #4	AJR

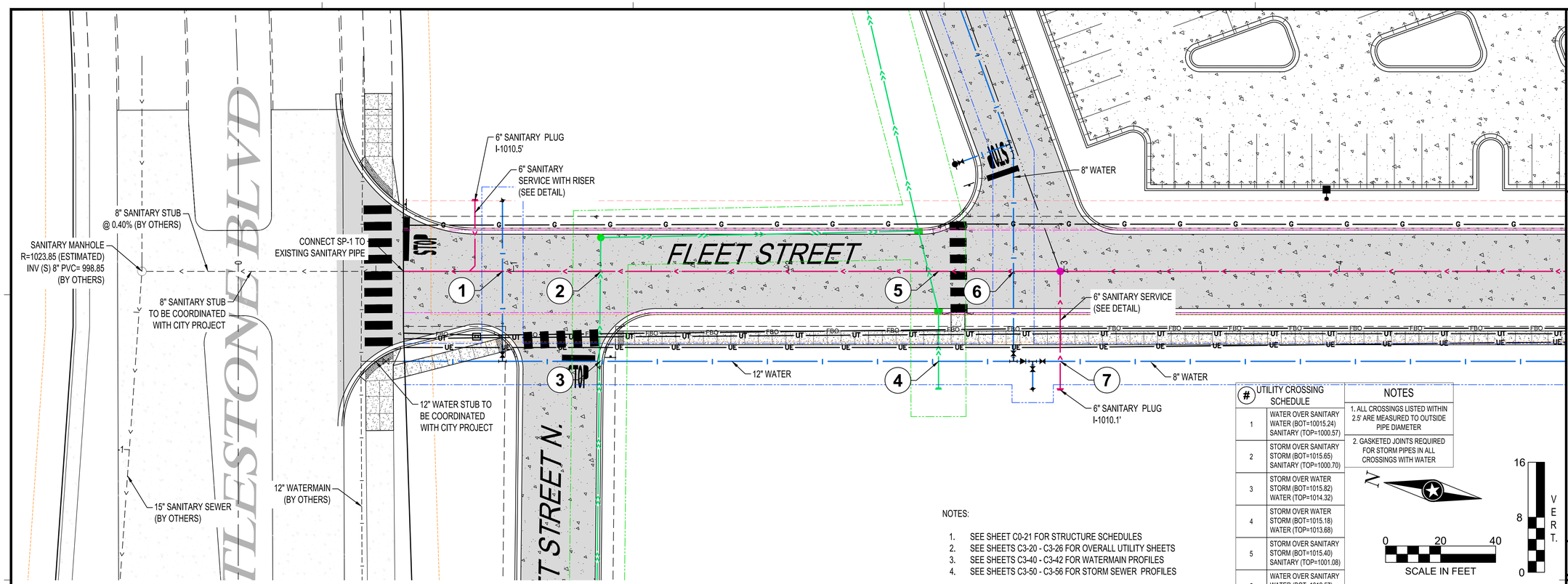
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (1 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE UTILITY PLAN (EAST)

SHEET

C3-26

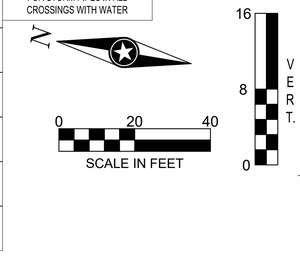


NOTES:

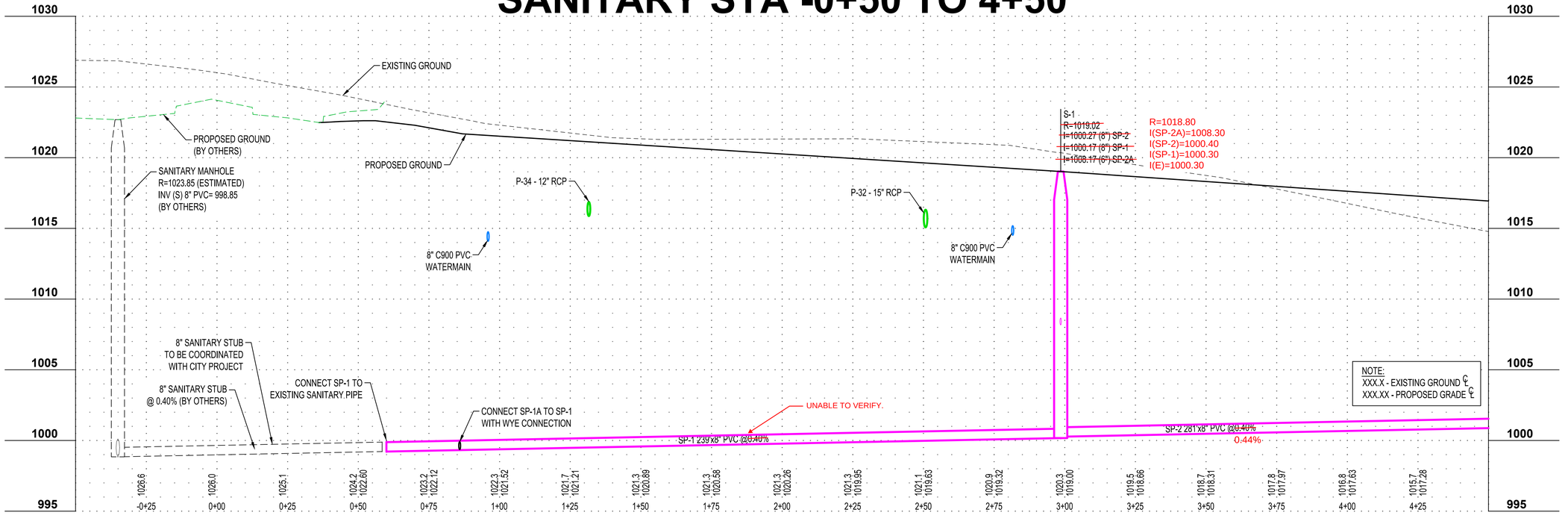
1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

#	UTILITY CROSSING SCHEDULE
1	WATER OVER SANITARY WATER (BOT=10015.24) SANITARY (TOP=1000.57)
2	STORM OVER SANITARY STORM (BOT=1015.65) SANITARY (TOP=1000.70)
3	STORM OVER WATER STORM (BOT=1015.82) WATER (TOP=1014.32)
4	STORM OVER WATER STORM (BOT=1015.18) WATER (TOP=1013.68)
5	STORM OVER SANITARY STORM (BOT=1015.40) SANITARY (TOP=1001.08)
6	WATER OVER SANITARY WATER (BOT=1012.57) SANITARY (TOP=1001.17)
7	WATER OVER SANITARY WATER (BOT=1013.57) SANITARY (TOP=1009.90)

NOTES
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER



SANITARY STA -0+50 TO 4+50



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
12/20/18	ISSUE FOR PERMIT	AJR
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

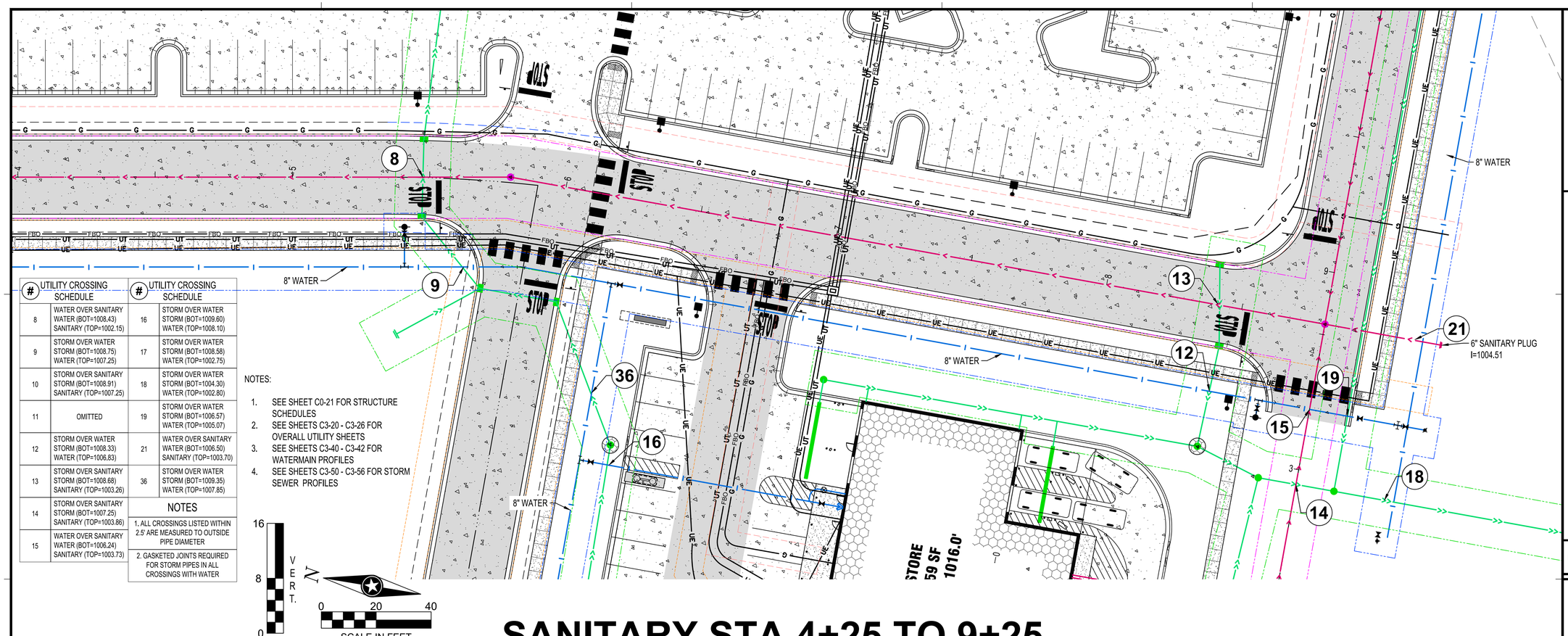
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SANITARY PROFILES

SHEET

C3-30



#	UTILITY CROSSING SCHEDULE	#	UTILITY CROSSING SCHEDULE
8	WATER OVER SANITARY WATER (BOT=1008.43) SANITARY (TOP=1002.15)	16	STORM OVER WATER STORM (BOT=1009.60) WATER (TOP=1008.10)
9	STORM OVER WATER STORM (BOT=1008.75) WATER (TOP=1007.25)	17	STORM OVER WATER STORM (BOT=1008.58) WATER (TOP=1002.75)
10	STORM OVER SANITARY STORM (BOT=1008.91) SANITARY (TOP=1007.25)	18	STORM OVER WATER STORM (BOT=1004.30) WATER (TOP=1002.80)
11	OMITTED	19	STORM OVER WATER STORM (BOT=1006.57) WATER (TOP=1005.07)
12	STORM OVER WATER STORM (BOT=1008.33) WATER (TOP=1006.83)	21	WATER OVER SANITARY WATER (BOT=1006.50) SANITARY (TOP=1003.70)
13	STORM OVER SANITARY STORM (BOT=1008.68) SANITARY (TOP=1003.26)	36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)
14	STORM OVER SANITARY STORM (BOT=1007.25) SANITARY (TOP=1003.86)	NOTES	
15	WATER OVER SANITARY WATER (BOT=1006.24) SANITARY (TOP=1003.73)	1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER	
		2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER	

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

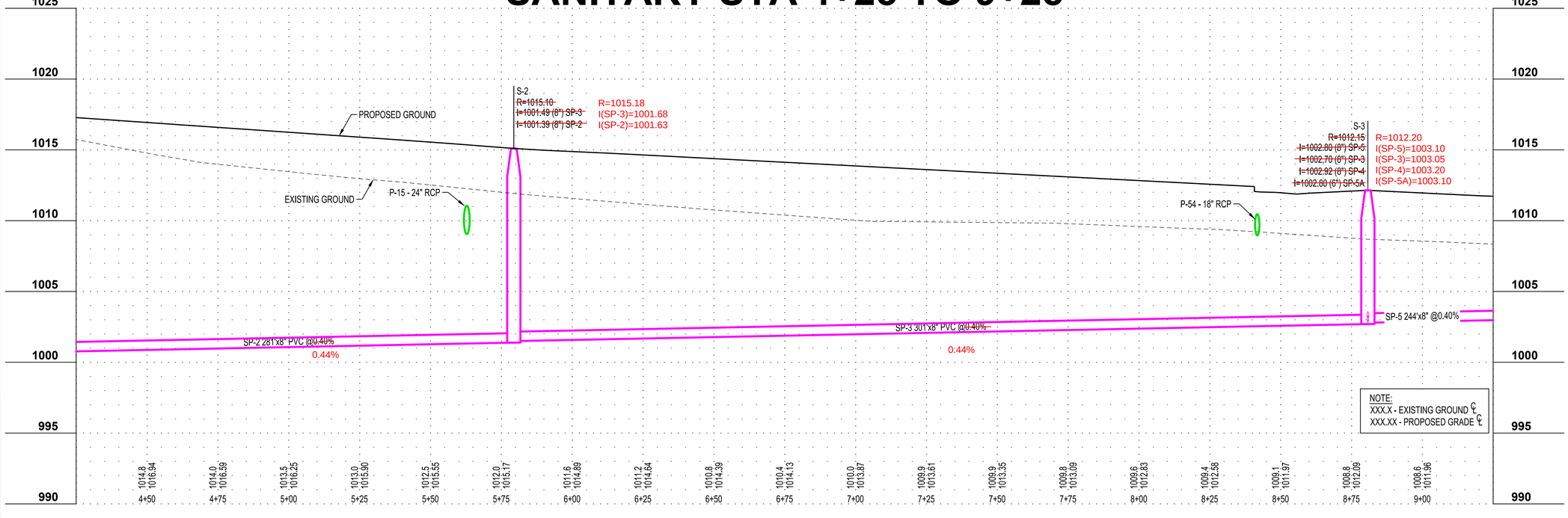
VERT. 16 8 0

N

0 20 40

SCALE IN FEET

SANITARY STA 4+25 TO 9+25



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GRADE

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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DATE	DESCRIPTION	BY
12/20/18	ISSUE FOR PERMIT	AJR
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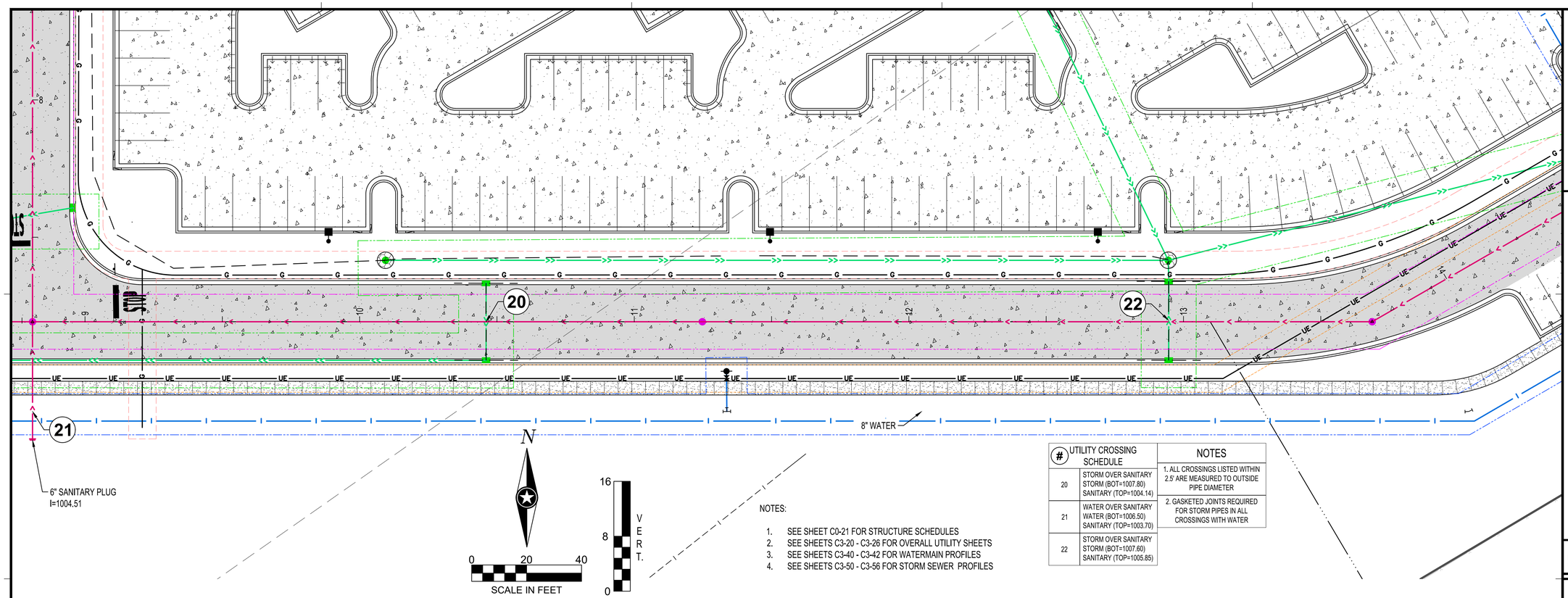
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
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REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
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TITLE

SANITARY PROFILES

SHEET

C3-31



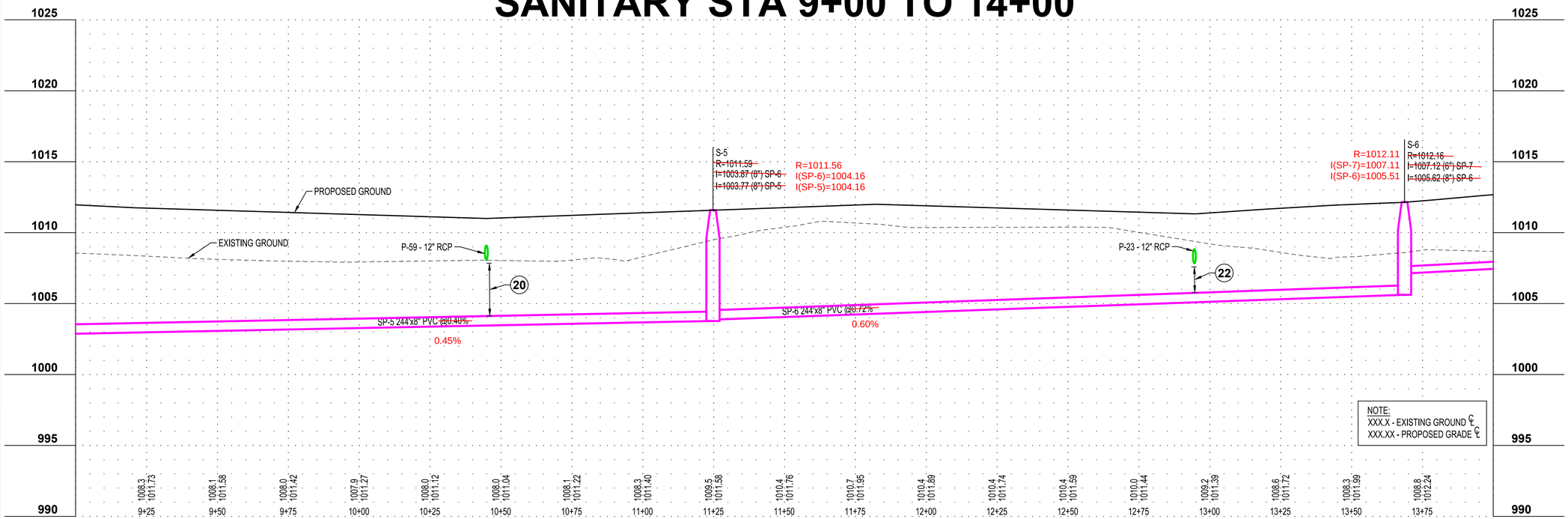
NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

#	UTILITY CROSSING SCHEDULE
20	STORM OVER SANITARY STORM (BOT=1007.80) SANITARY (TOP=1004.14)
21	WATER OVER SANITARY WATER (BOT=1006.50) SANITARY (TOP=1003.70)
22	STORM OVER SANITARY STORM (BOT=1007.60) SANITARY (TOP=1005.85)

NOTES
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

SANITARY STA 9+00 TO 14+00



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GRADE

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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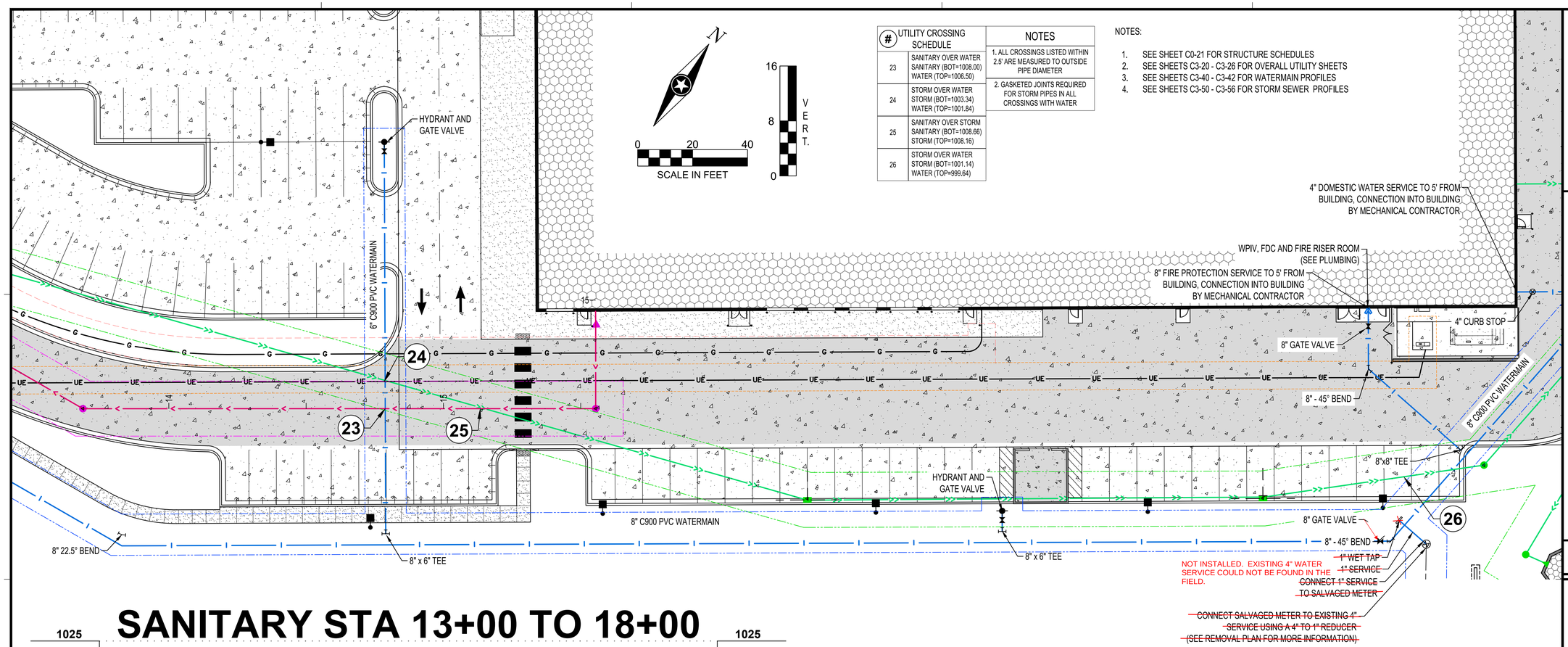
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TITLE

SANITARY PROFILES

SHEET

C3-32



#	UTILITY CROSSING SCHEDULE
23	SANITARY OVER WATER SANITARY (BOT=1008.00) WATER (TOP=1006.50)
24	STORM OVER WATER STORM (BOT=1003.34) WATER (TOP=1001.84)
25	SANITARY OVER STORM SANITARY (BOT=1008.66) STORM (TOP=1008.16)
26	STORM OVER WATER STORM (BOT=1001.14) WATER (TOP=999.64)

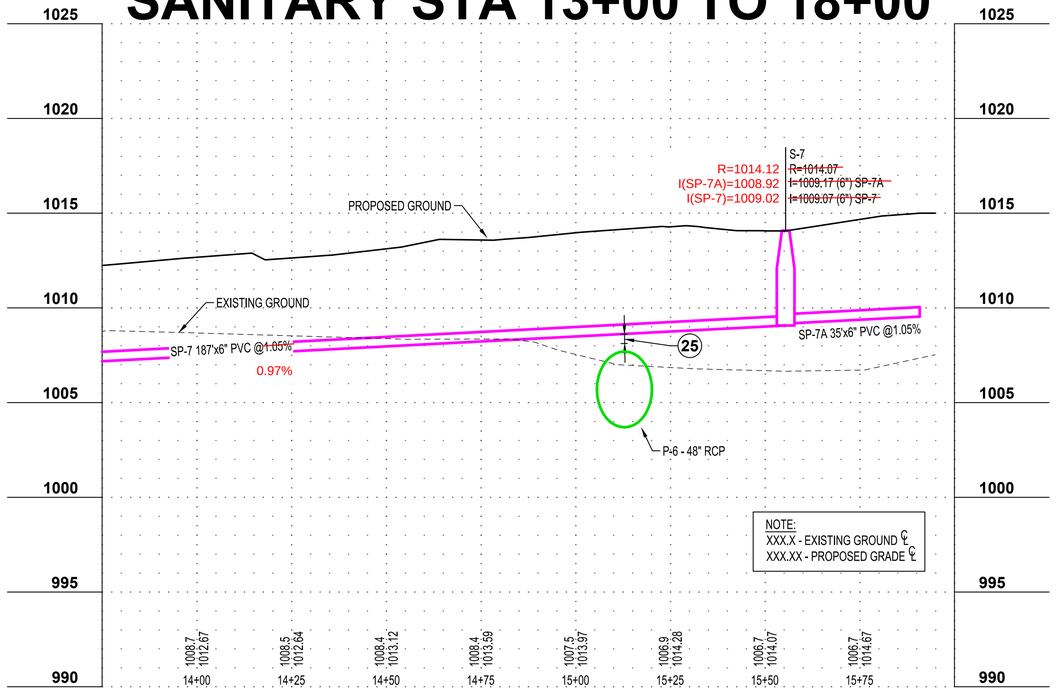
NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

SANITARY STA 13+00 TO 18+00



NOTE:
XXX.X - EXISTING GROUND ℄
XXX.XX - PROPOSED GRADE ℄

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

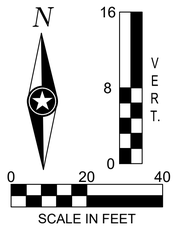
TITLE

SANITARY PROFILES

SHEET

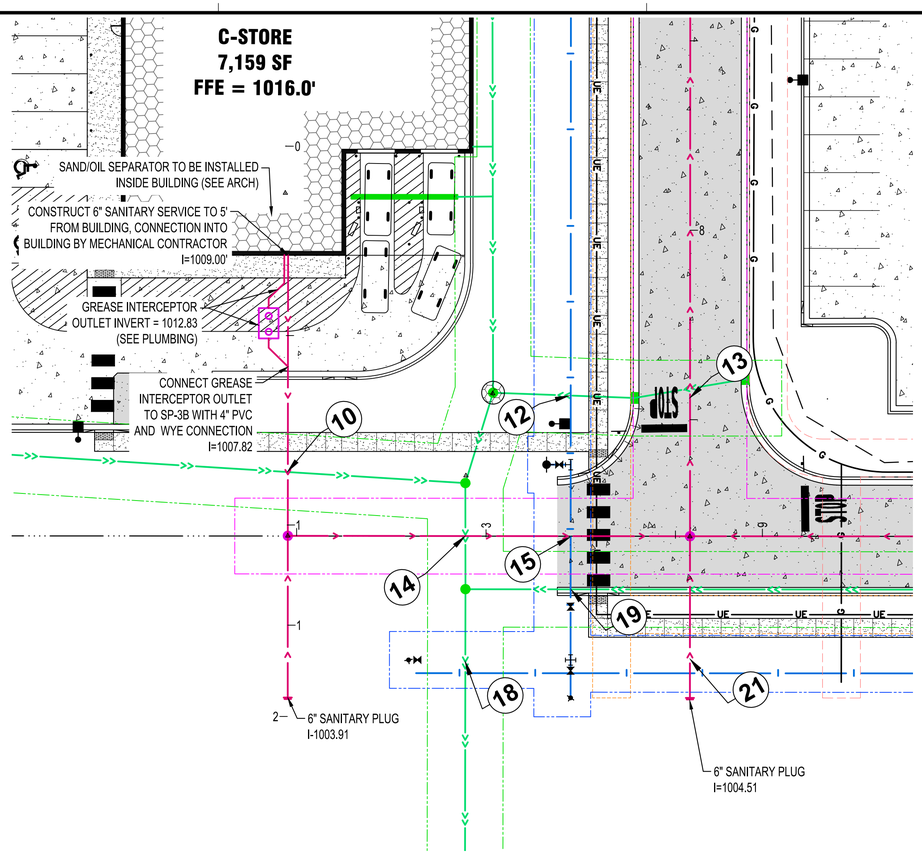
C3-33

#	UTILITY CROSSING SCHEDULE
10	STORM OVER SANITARY STORM (BOT=1008.91) SANITARY (TOP=1007.25)
11	OMITTED
12	STORM OVER WATER STORM (BOT=1008.33) WATER (TOP=1006.83)
13	STORM OVER SANITARY STORM (BOT=1008.68) SANITARY (TOP=1003.26)
14	STORM OVER SANITARY STORM (BOT=1007.25) SANITARY (TOP=1003.86)
15	WATER OVER SANITARY WATER (BOT=1006.24) SANITARY (TOP=1003.73)
16	STORM OVER WATER STORM (BOT=1009.60) WATER (TOP=1008.10)
17	STORM OVER WATER STORM (BOT=1008.58) WATER (TOP=1002.75)
18	STORM OVER WATER STORM (BOT=1004.30) WATER (TOP=1002.80)
20	STORM OVER SANITARY STORM (BOT=1007.80) SANITARY (TOP=1004.14)
35	STORM OVER WATER STORM (BOT=1011.22) WATER (TOP=1008.35)
36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)
NOTES	
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER	
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER	

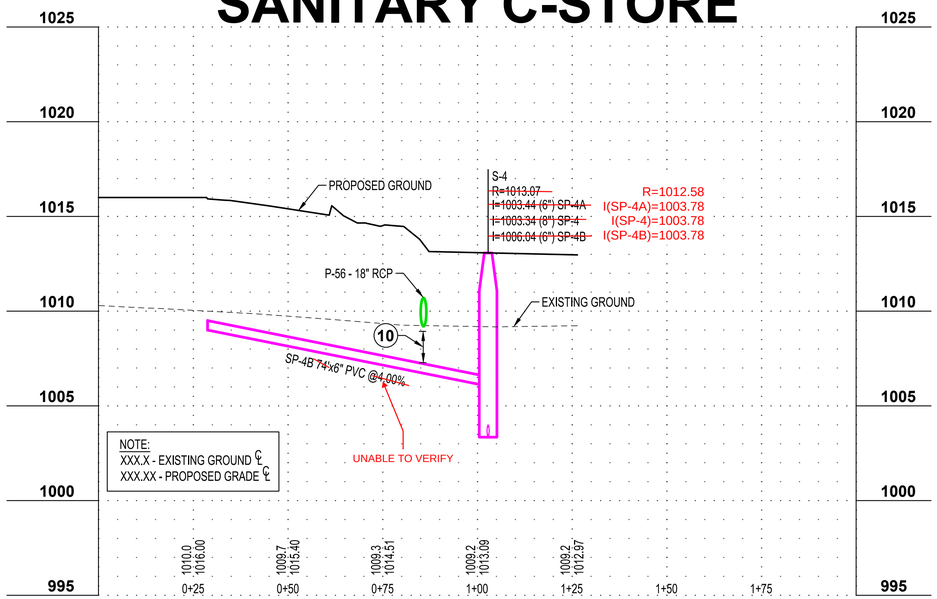


NOTES:

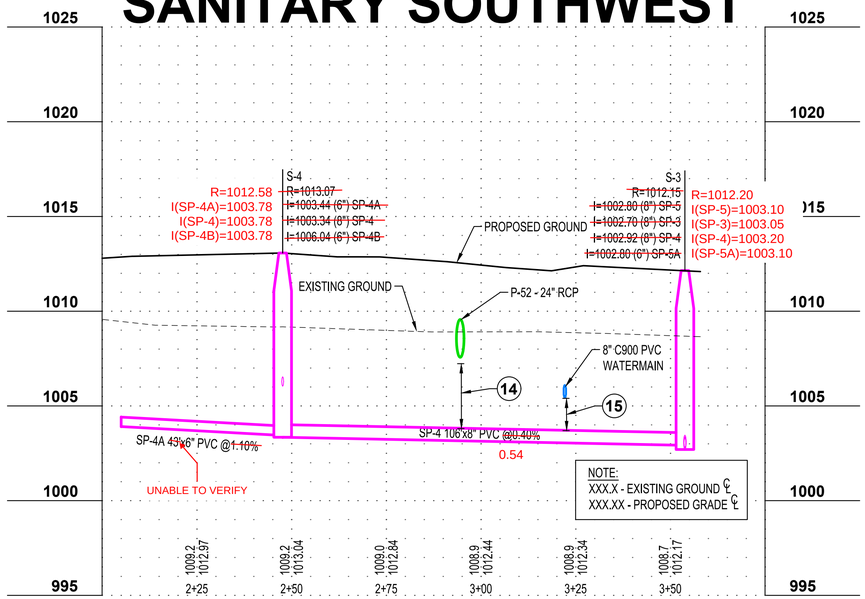
1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-40 - C3-42 FOR WATERMAIN PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES



SANITARY C-STORE



SANITARY SOUTHWEST



ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
12/20/18	ISSUE FOR PERMIT	AJR
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

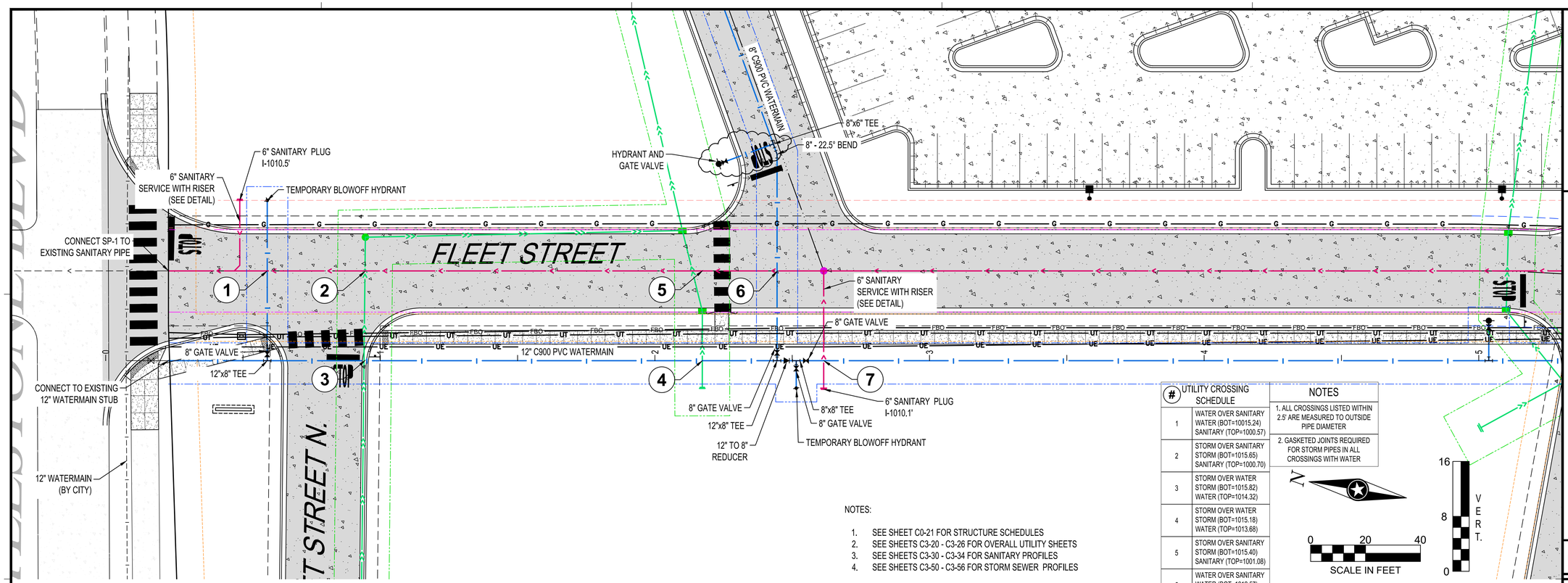
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SANITARY PROFILES

SHEET

C3-34



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

#	UTILITY CROSSING SCHEDULE
1	WATER OVER SANITARY WATER (BOT=10015.24) SANITARY (TOP=1000.57)
2	STORM OVER SANITARY STORM (BOT=1015.65) SANITARY (TOP=1000.70)
3	STORM OVER WATER STORM (BOT=1015.82) WATER (TOP=1014.32)
4	STORM OVER WATER STORM (BOT=1015.18) WATER (TOP=1013.68)
5	STORM OVER SANITARY STORM (BOT=1015.40) SANITARY (TOP=1001.08)
6	WATER OVER SANITARY WATER (BOT=1012.57) SANITARY (TOP=1001.17)
7	WATER OVER SANITARY WATER (BOT=1013.57) SANITARY (TOP=1009.90)

NOTES

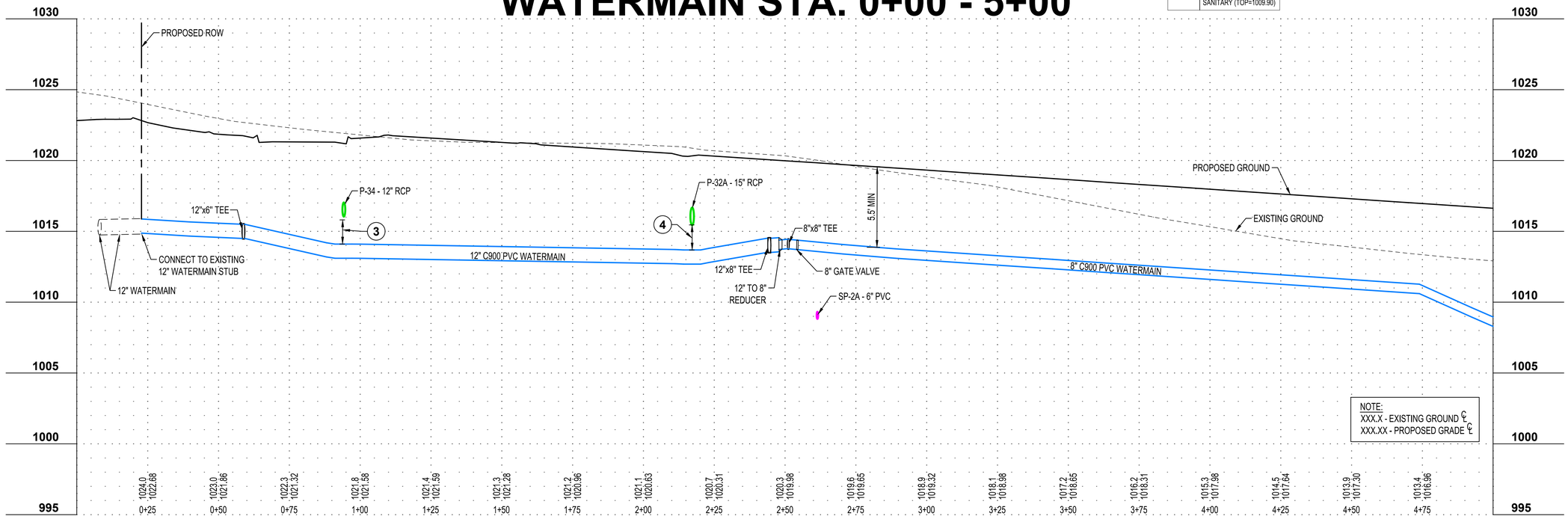
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

N

0 20 40
SCALE IN FEET

16
8
VERT.
0

WATERMAIN STA. 0+00 - 5+00



NOTE:
XXX.X - EXISTING GROUND ℄
XXX.XX - PROPOSED GRADE ℄

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
05/29/19	CCD #4-C	JMF

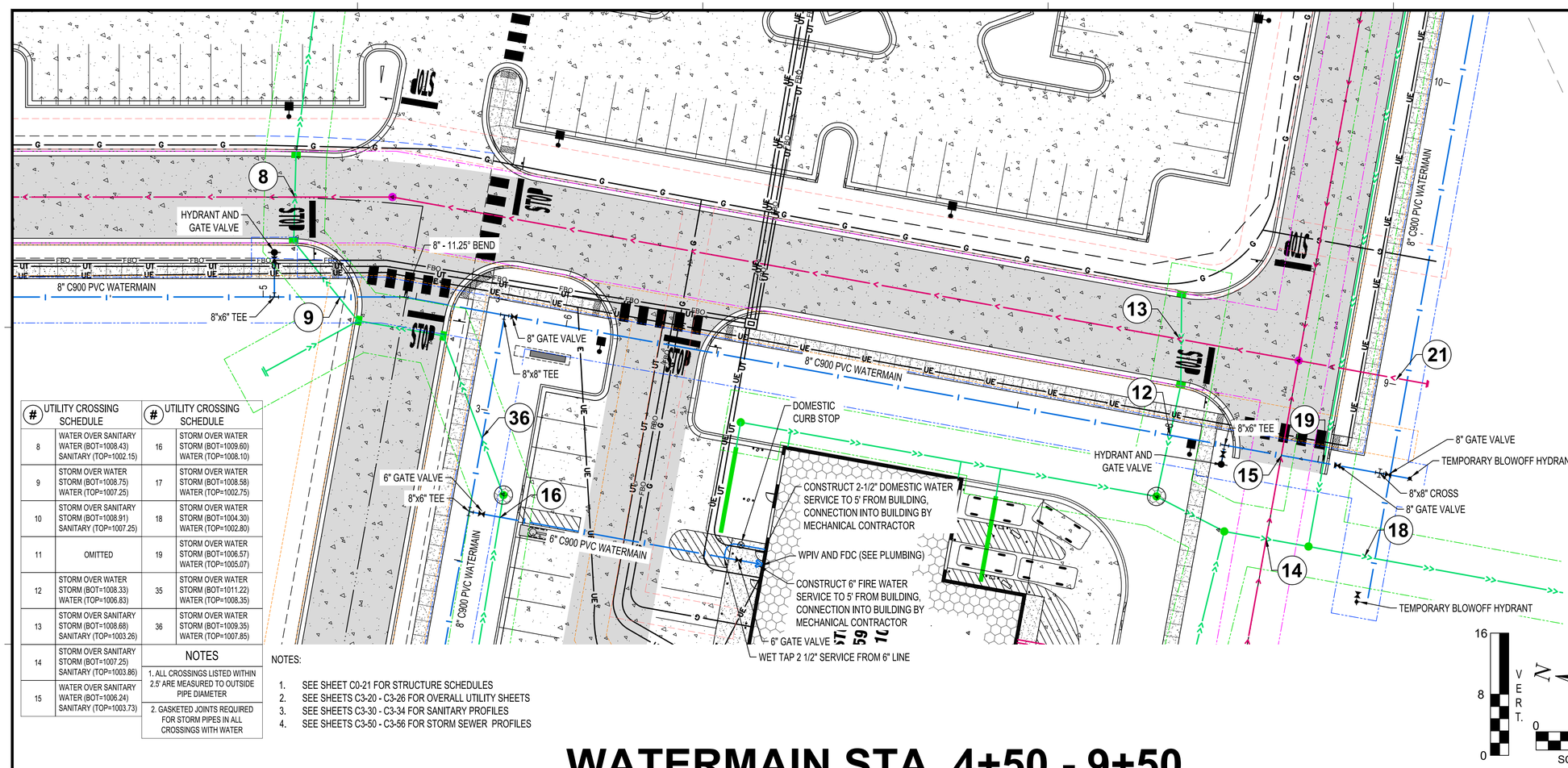
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

WATERMAIN PROFILES

SHEET

C3-40



#	UTILITY CROSSING SCHEDULE	#	UTILITY CROSSING SCHEDULE
8	WATER OVER SANITARY WATER (BOT=1008.43) SANITARY (TOP=1002.15)	16	STORM OVER WATER STORM (BOT=1009.60) WATER (TOP=1008.10)
9	STORM OVER WATER STORM (BOT=1008.75) WATER (TOP=1007.25)	17	STORM OVER WATER STORM (BOT=1008.58) WATER (TOP=1002.75)
10	STORM OVER SANITARY STORM (BOT=1008.91) SANITARY (TOP=1007.25)	18	STORM OVER WATER STORM (BOT=1004.30) WATER (TOP=1002.80)
11	OMITTED	19	STORM OVER WATER STORM (BOT=1006.57) WATER (TOP=1005.07)
12	STORM OVER WATER STORM (BOT=1008.33) WATER (TOP=1006.83)	35	STORM OVER WATER STORM (BOT=1011.22) WATER (TOP=1008.35)
13	STORM OVER SANITARY STORM (BOT=1008.68) SANITARY (TOP=1003.26)	36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)
14	STORM OVER SANITARY STORM (BOT=1007.25) SANITARY (TOP=1003.86)	NOTES	
15	WATER OVER SANITARY WATER (BOT=1006.24) SANITARY (TOP=1003.73)	1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER 2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER	

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

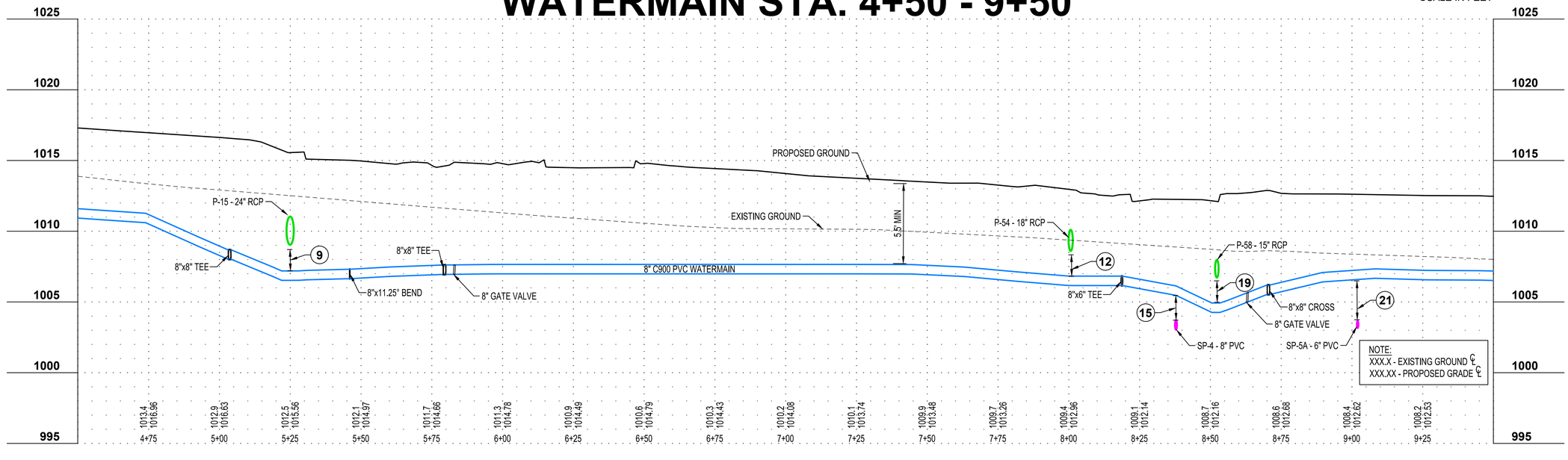
VERT. 16 8 0

N

0 20 40

SCALE IN FEET

WATERMAIN STA. 4+50 - 9+50



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

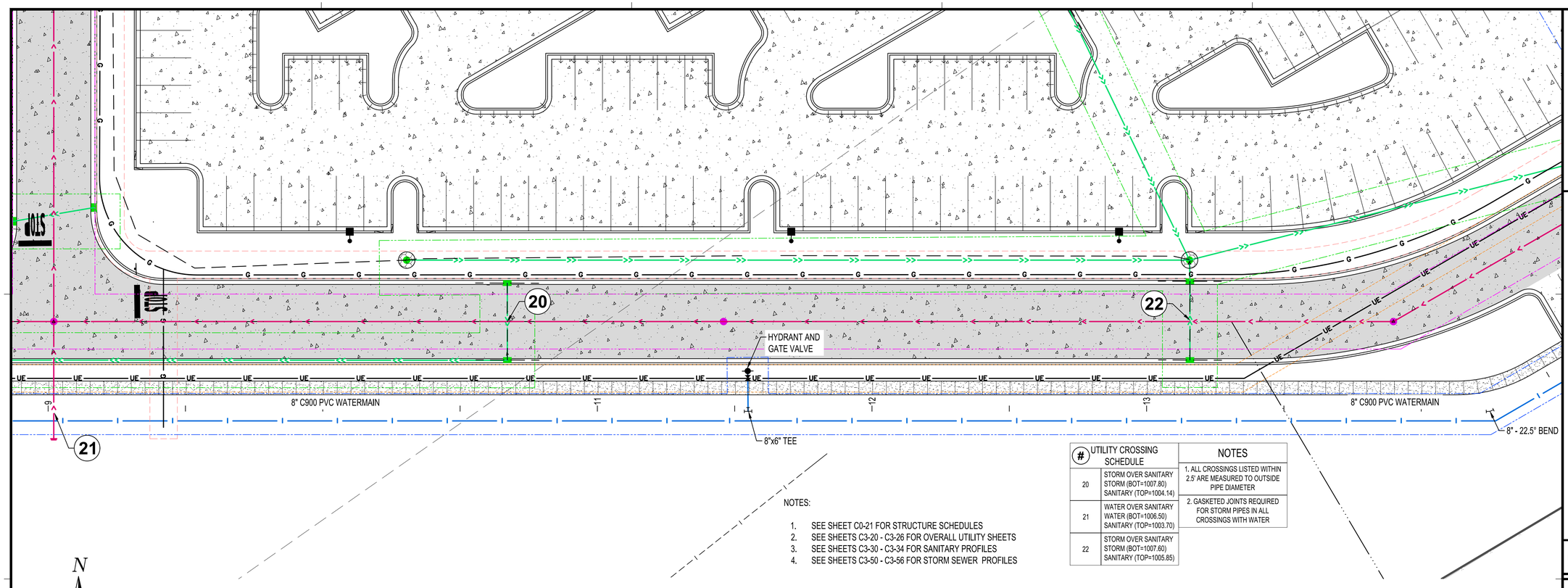
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

WATERMAIN PROFILES

SHEET

C3-41



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

#	UTILITY CROSSING SCHEDULE
20	STORM OVER SANITARY STORM (BOT=1007.80) SANITARY (TOP=1004.14)
21	WATER OVER SANITARY WATER (BOT=1006.50) SANITARY (TOP=1003.70)
22	STORM OVER SANITARY STORM (BOT=1007.60) SANITARY (TOP=1005.85)

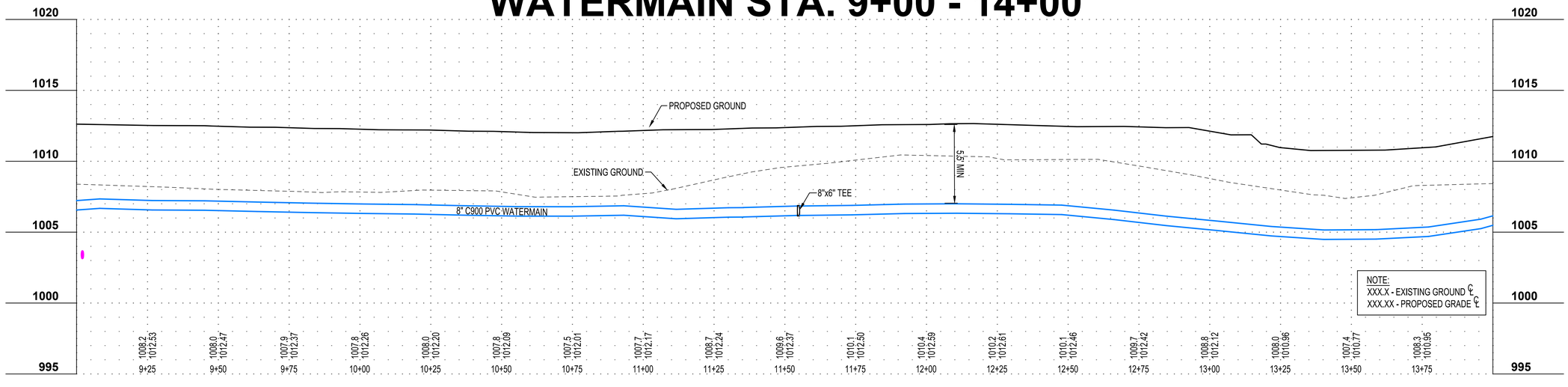
NOTES
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

N

0 20 40
SCALE IN FEET

16 8 0
VERT.

WATERMAIN STA. 9+00 - 14+00



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR

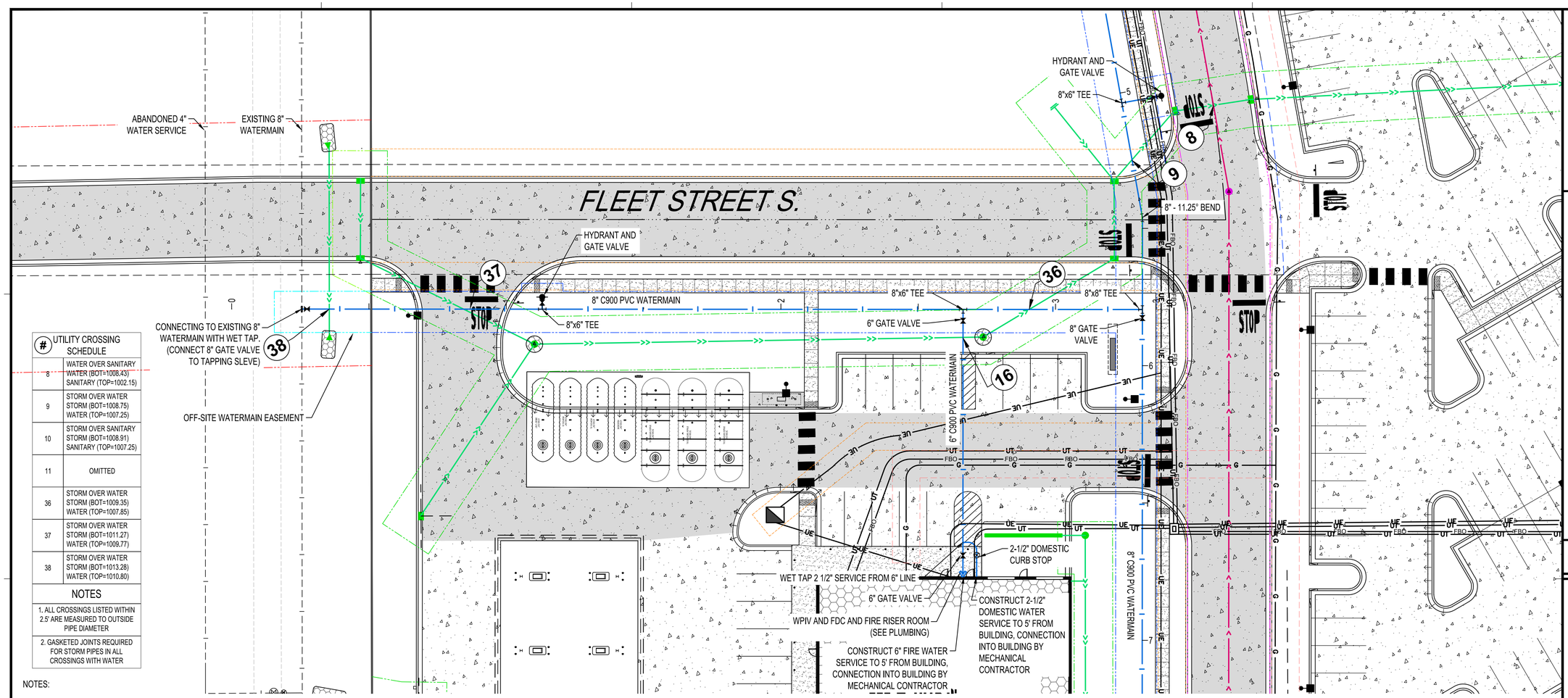
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

WATERMAIN PROFILES

SHEET

C3-42



#	UTILITY CROSSING SCHEDULE
8	WATER OVER SANITARY WATER (BOT=1008.43) SANITARY (TOP=1002.15)
9	STORM OVER WATER STORM (BOT=1008.75) WATER (TOP=1007.25)
10	STORM OVER SANITARY STORM (BOT=1008.91) SANITARY (TOP=1007.25)
11	OMITTED
36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)
37	STORM OVER WATER STORM (BOT=1011.27) WATER (TOP=1009.77)
38	STORM OVER WATER STORM (BOT=1013.28) WATER (TOP=1010.80)

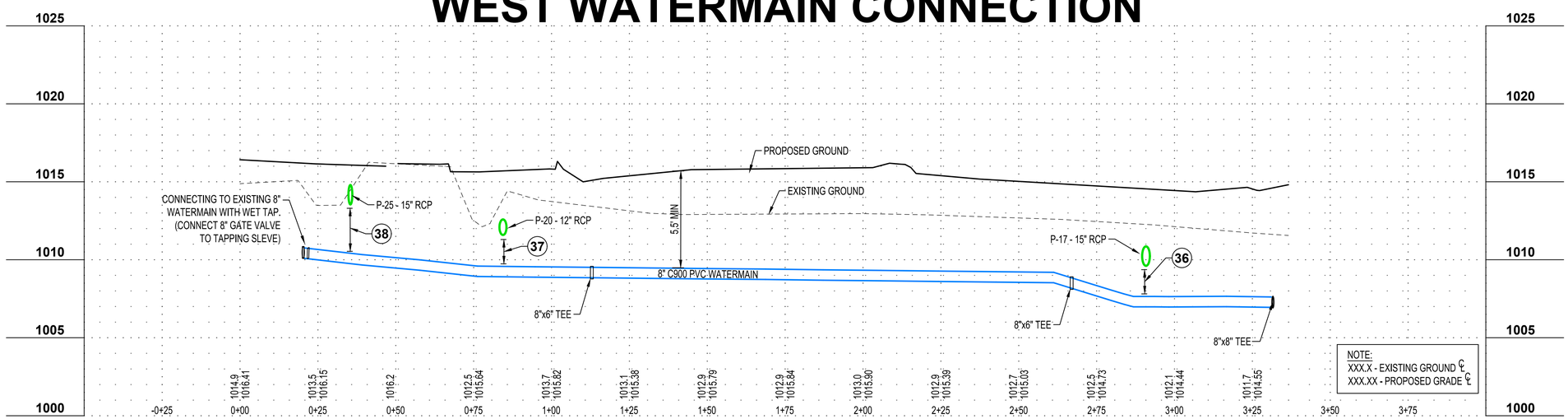
NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

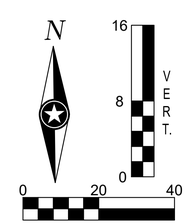
NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-50 - C3-56 FOR STORM SEWER PROFILES

WEST WATERMAIN CONNECTION



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GRADE



ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (2 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

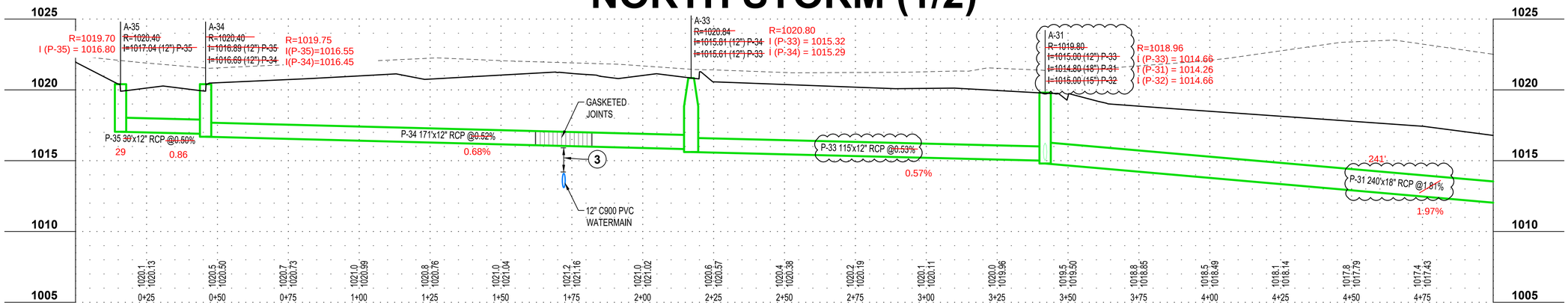
TITLE

WATERMAIN PROFILES

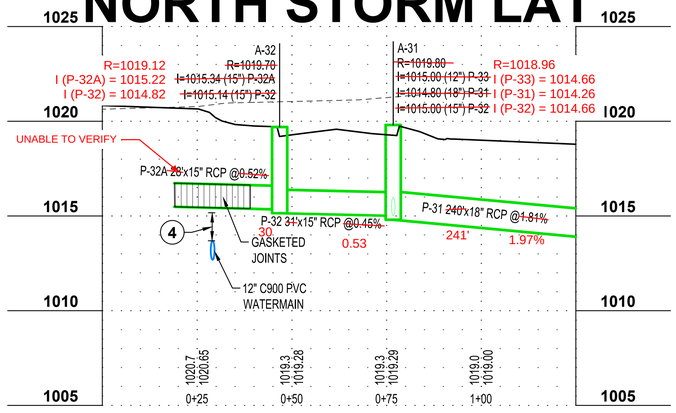
SHEET

C3-43

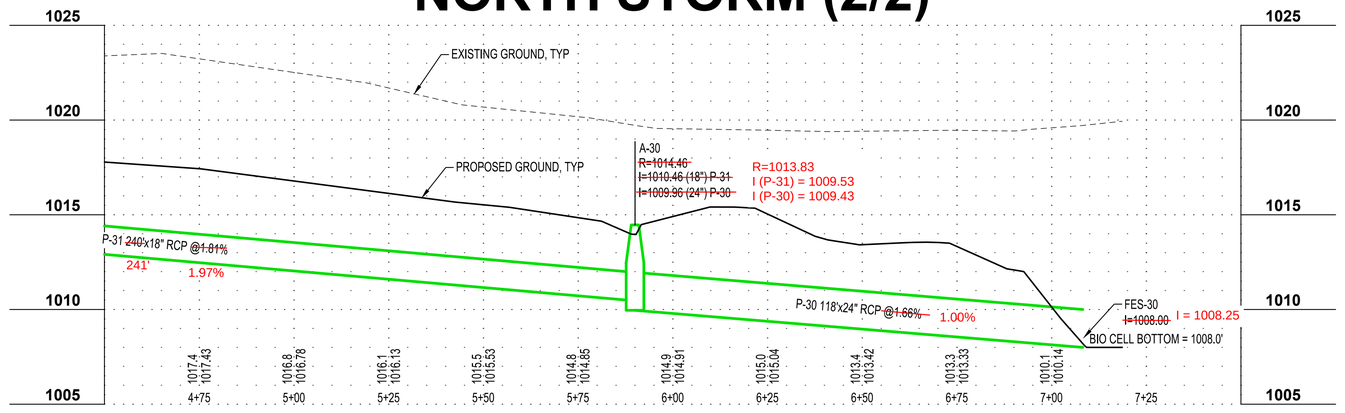
NORTH STORM (1/2)



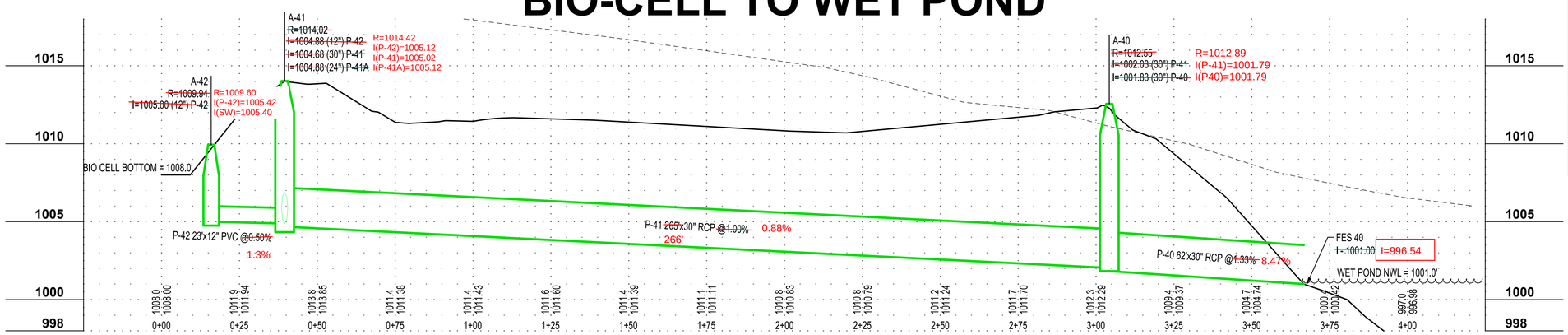
NORTH STORM LAT



NORTH STORM (2/2)



BIO-CELL TO WET POND



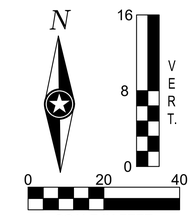
#	UTILITY CROSSING SCHEDULE
3	STORM OVER WATER STORM (BOT=1015.82) WATER (TOP=1014.32)
4	STORM OVER WATER STORM (BOT=1015.18) WATER (TOP=1013.68)

NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
05/29/19	CCD #4-C	JMF

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

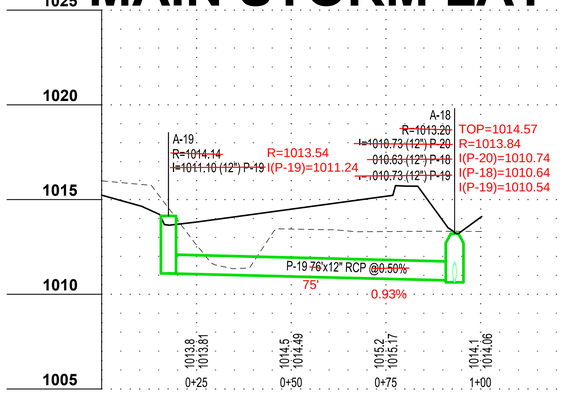
TITLE

STORM SEWER PROFILES

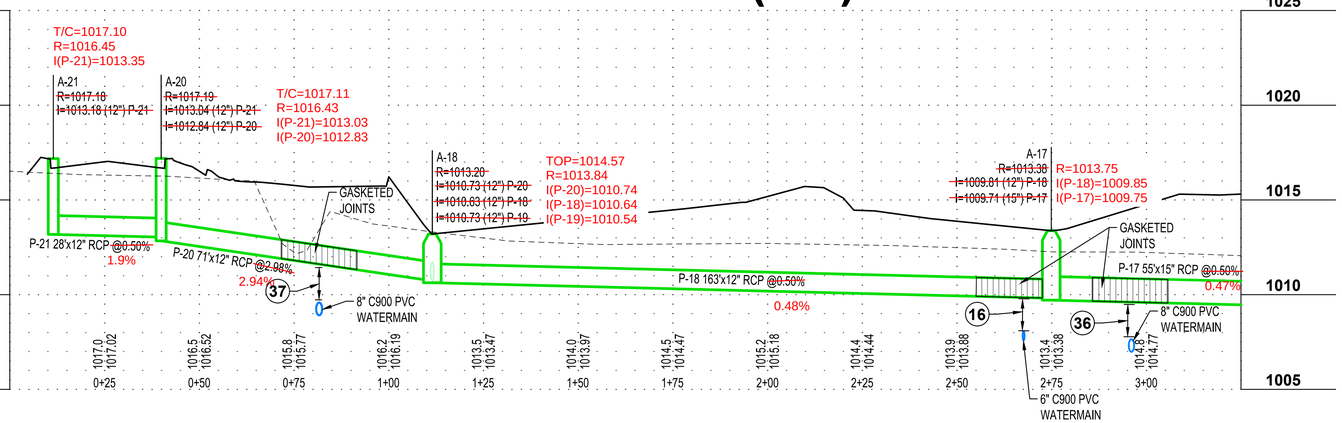
SHEET

C3-50

MAIN STORM LAT-1



MAIN STORM (1/6)

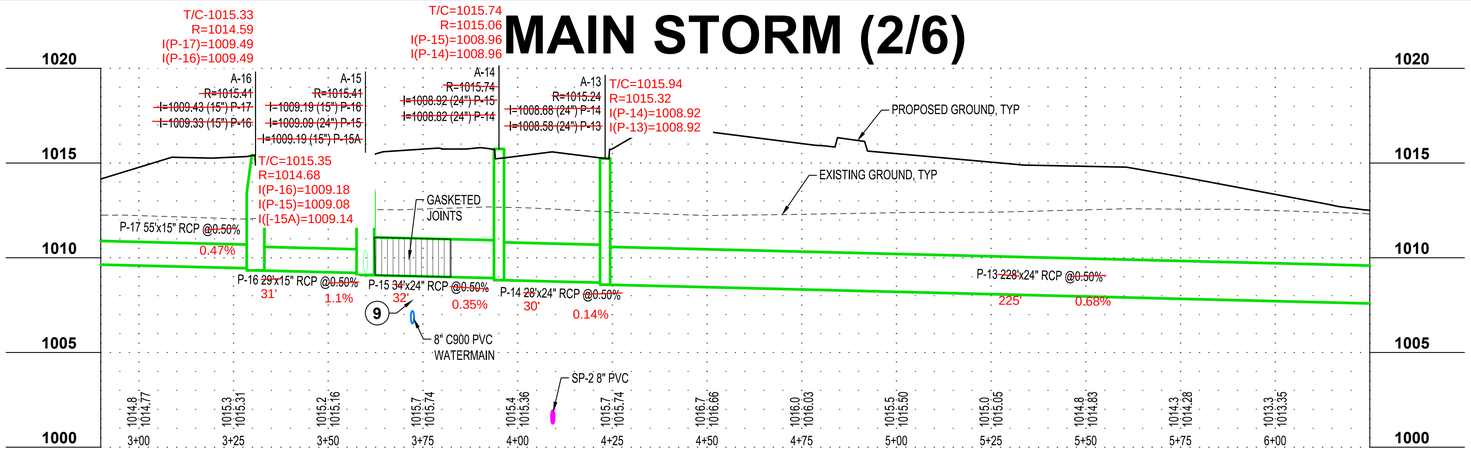


#	UTILITY CROSSING SCHEDULE
9	STORM OVER WATER STORM (BOT=1008.75) WATER (TOP=1007.25)
10	STORM OVER SANITARY STORM (BOT=1008.91) SANITARY (TOP=1007.25)
36	STORM OVER WATER STORM (BOT=1009.35) WATER (TOP=1007.85)
37	STORM OVER WATER STORM (BOT=1011.27) WATER (TOP=1009.77)

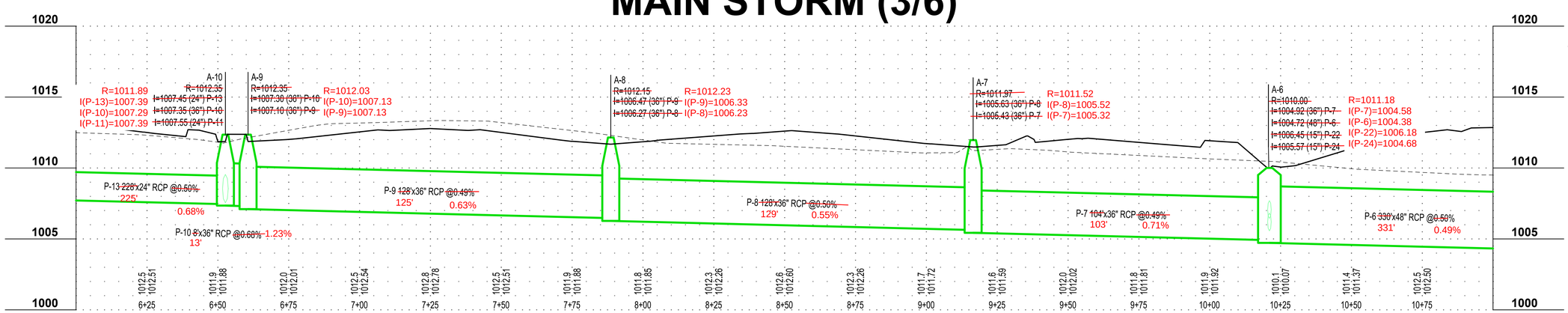
NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

MAIN STORM (2/6)



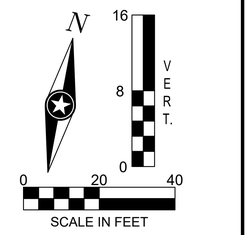
MAIN STORM (3/6)



ISG

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

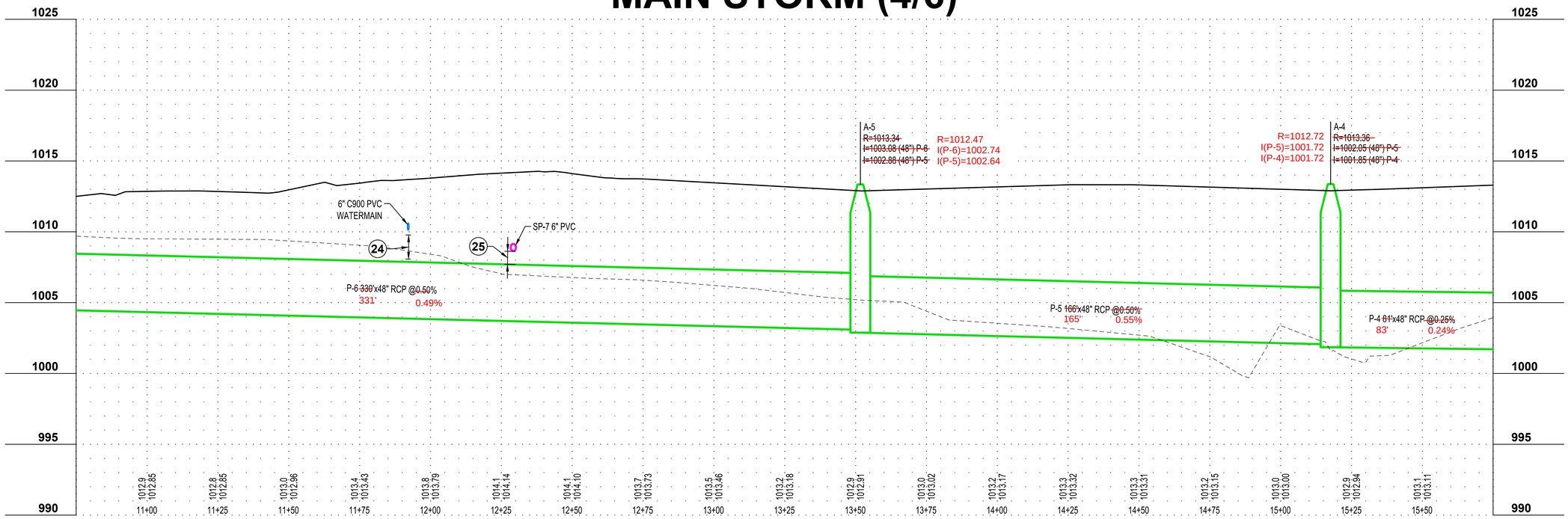
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STORM SEWER PROFILES

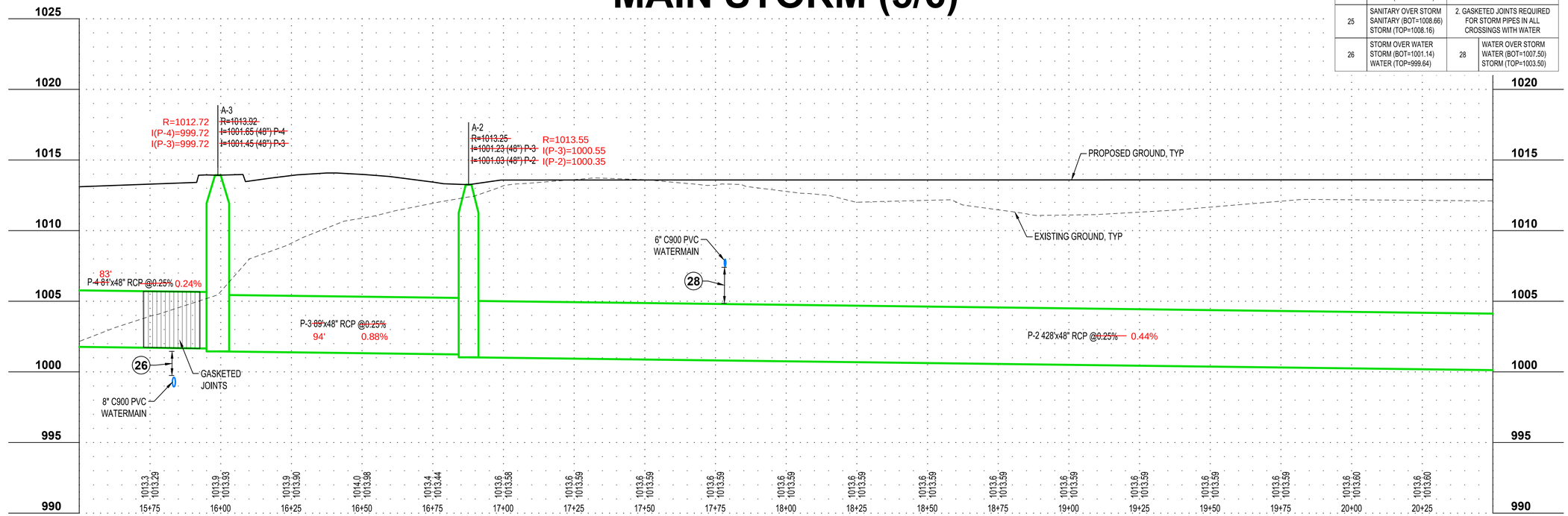
SHEET

C3-51

MAIN STORM (4/6)



MAIN STORM (5/6)



#	UTILITY CROSSING SCHEDULE		
24	STORM OVER WATER STORM (BOT=1003.34) WATER (TOP=1001.84)		
25	SANITARY OVER STORM SANITARY (BOT=1008.66) STORM (TOP=1008.16)		
26	STORM OVER WATER STORM (BOT=1001.14) WATER (TOP=999.64)	28	WATER OVER STORM WATER (BOT=1007.50) STORM (TOP=1003.50)

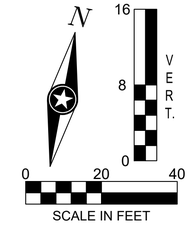
NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

ISG

NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

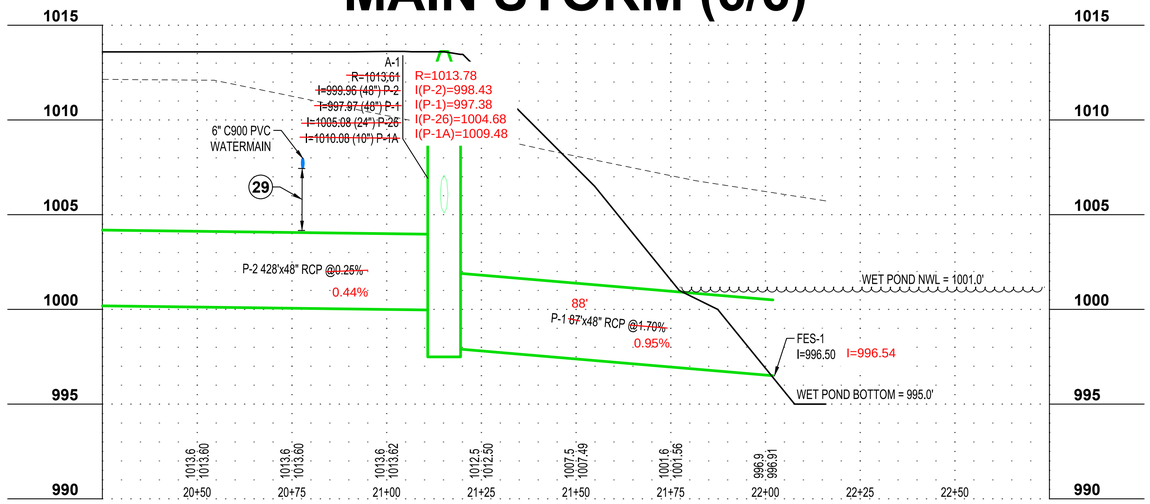
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STORM SEWER PROFILES

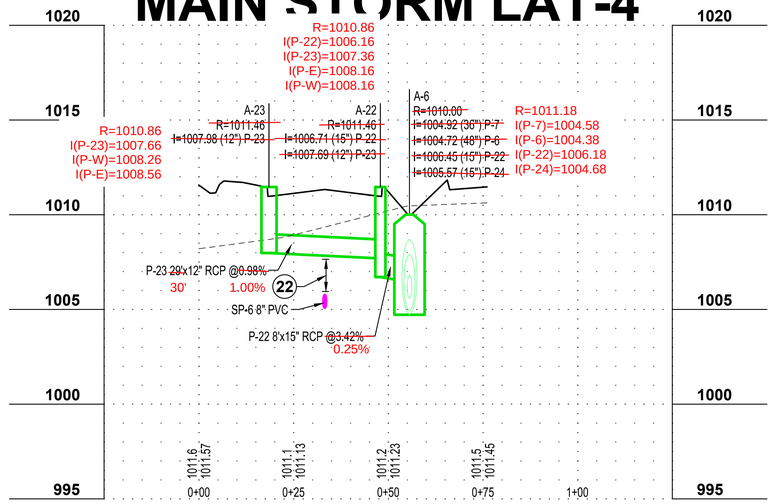
SHEET

C3-52

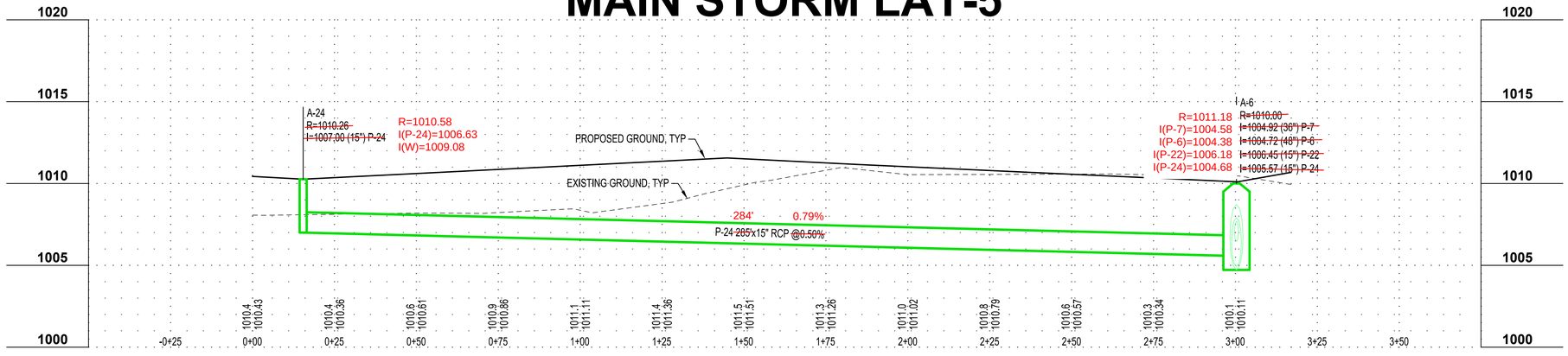
MAIN STORM (6/6)



MAIN STORM LAT-4



MAIN STORM LAT-5

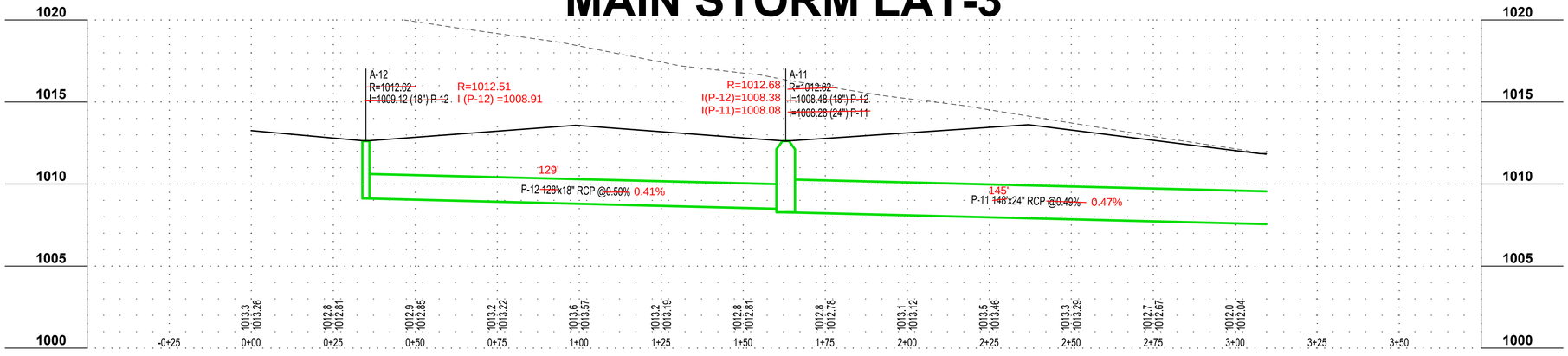


#	UTILITY CROSSING SCHEDULE
22	STORM OVER SANITARY STORM (BOT=1007.60) SANITARY (TOP=1005.85)
29	WATER OVER STORM WATER (BOT=1006.90) STORM (TOP=1004.10)

NOTES

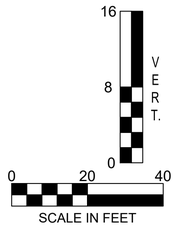
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

MAIN STORM LAT-3



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
02/19/19	REVISED PER CITY REVIEW #2	AJR

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

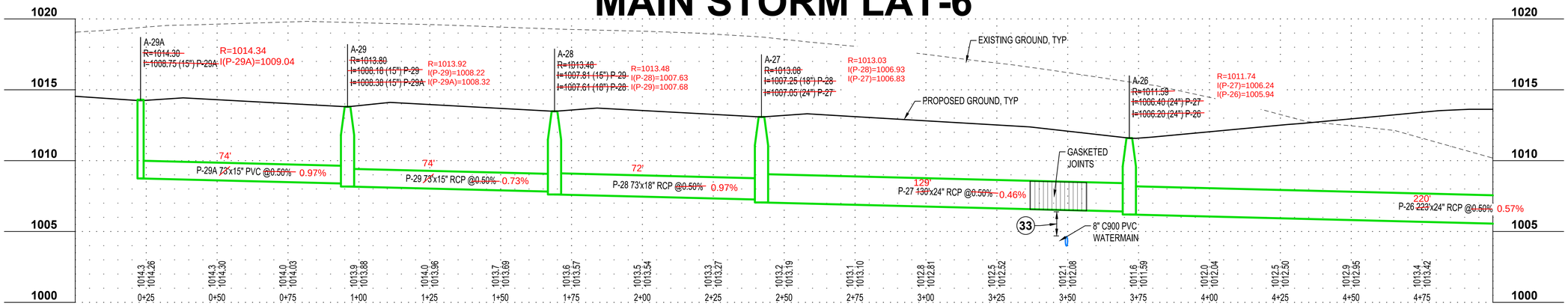
TITLE

STORM SEWER PROFILES

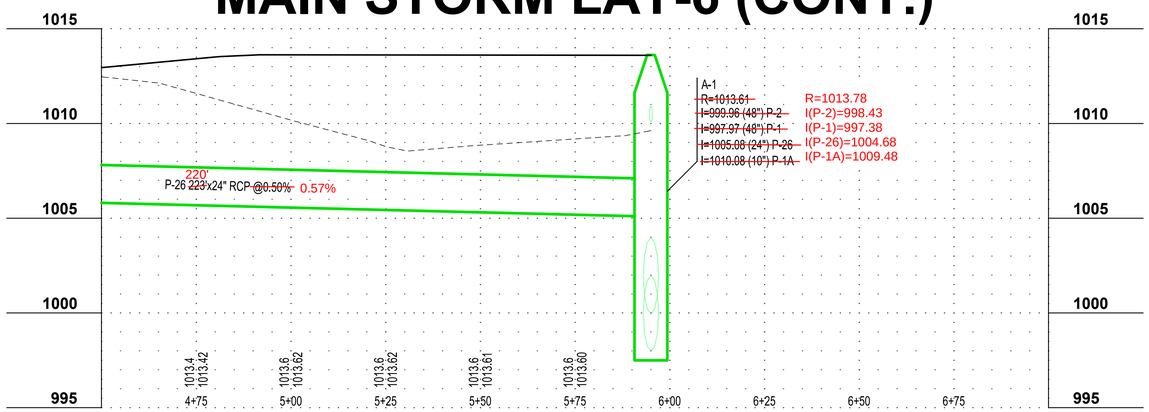
SHEET

C3-53

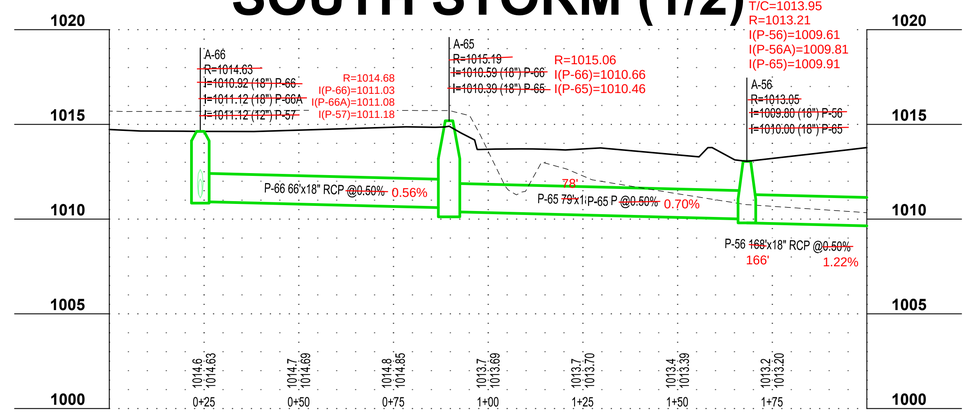
MAIN STORM LAT-6



MAIN STORM LAT-6 (CONT.)



SOUTH STORM (1/2)

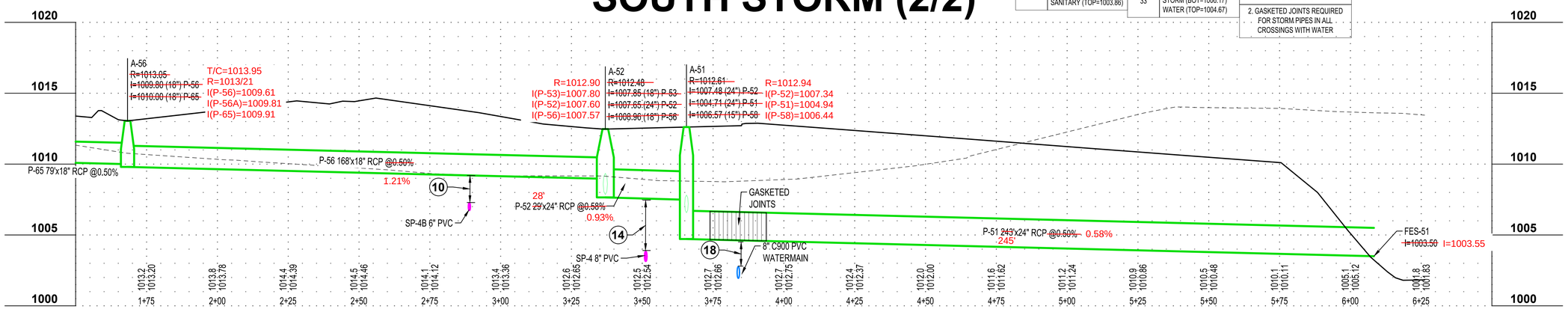


SOUTH STORM (2/2)

#	UTILITY CROSSING SCHEDULE
14	STORM OVER SANITARY STORM (BOT=1007.25) SANITARY (TOP=1003.86)
18	STORM OVER WATER STORM (BOT=1004.30) WATER (TOP=1002.80)
33	STORM OVER WATER STORM (BOT=1006.17) WATER (TOP=1004.67)

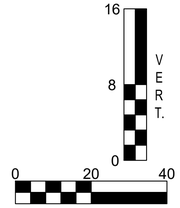
NOTES

1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES



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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

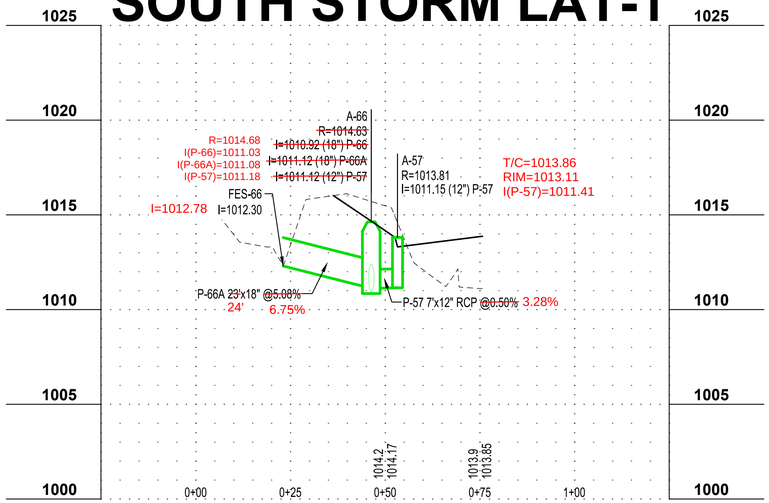
TITLE

STORM SEWER PROFILES

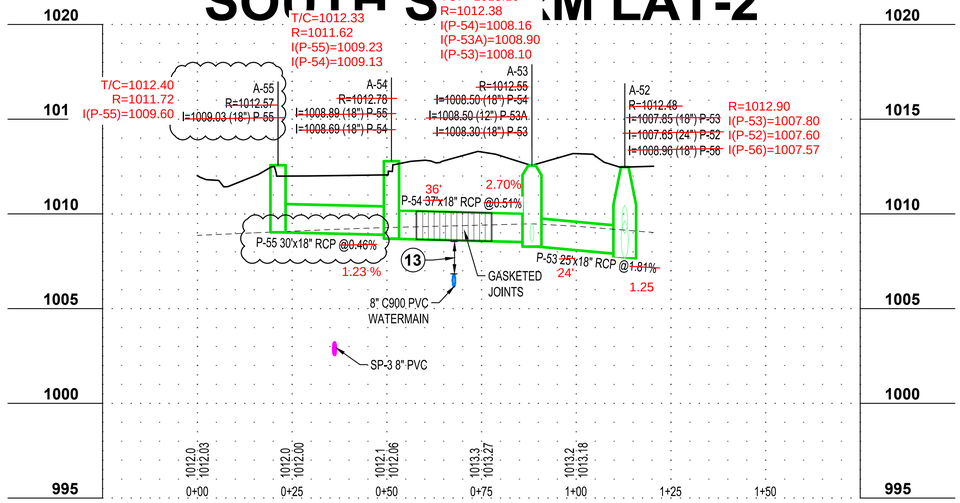
SHEET

C3-54

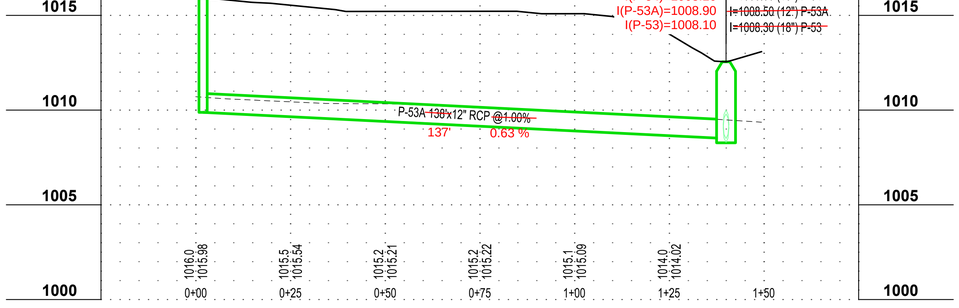
SOUTH STORM LAT-1



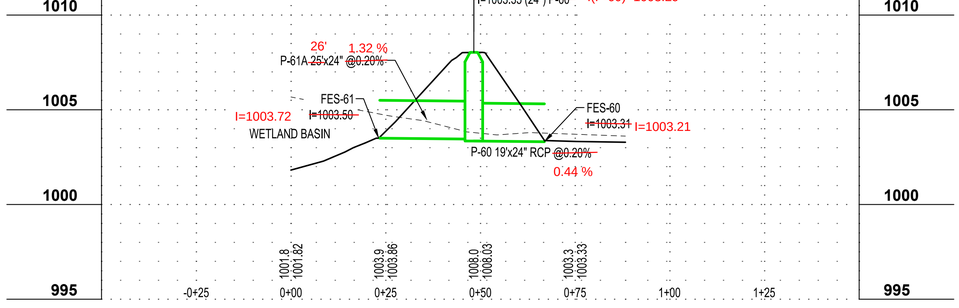
SOUTH STORM LAT-2



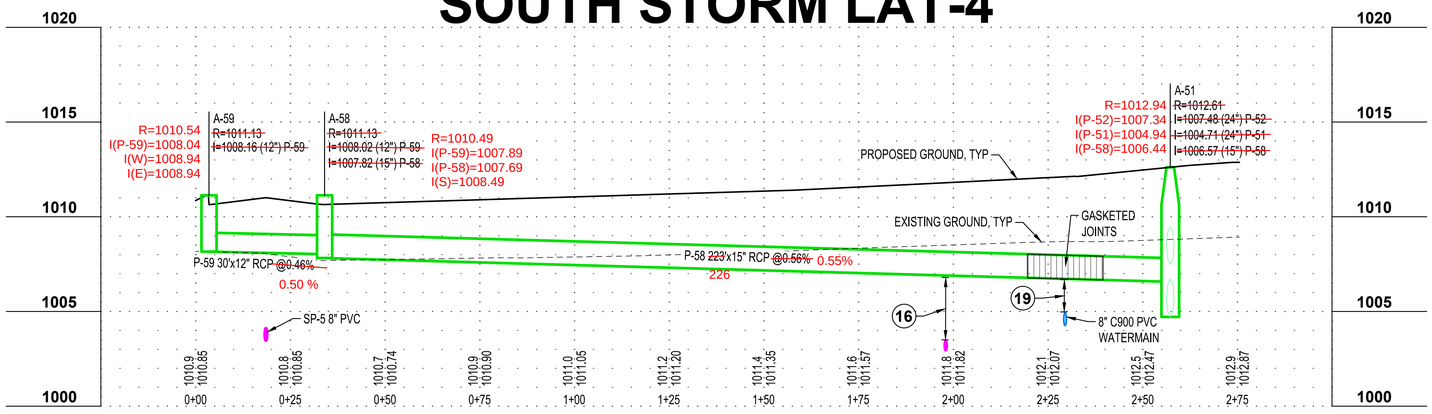
SOUTH STORM LAT-3



DRY POND OUTLET

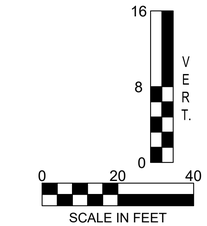


SOUTH STORM LAT-4



NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES



#	UTILITY CROSSING SCHEDULE
13	STORM OVER SANITARY STORM (BOT=1008.68) SANITARY (TOP=1003.26)
16	STORM OVER WATER STORM (BOT=1009.60) WATER (TOP=1008.10)
19	STORM OVER WATER STORM (BOT=1006.57) WATER (TOP=1005.07)

NOTES
1. ALL CROSSINGS LISTED WITHIN 2.5' ARE MEASURED TO OUTSIDE PIPE DIAMETER
2. GASKETED JOINTS REQUIRED FOR STORM PIPES IN ALL CROSSINGS WITH WATER

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
02/19/19	REVISED PER CITY REVIEW #2	AJR
05/29/19	CCD #4-C	JMF

PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

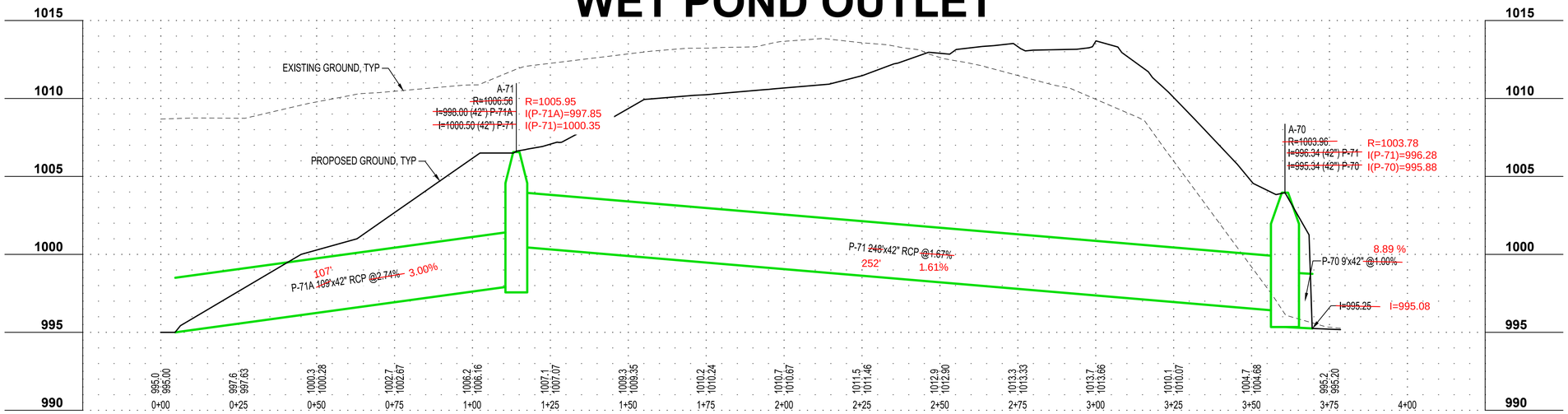
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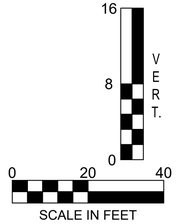
STORM SEWER PROFILES

SHEET

C3-55

WET POND OUTLET





NOTES:

1. SEE SHEET C0-21 FOR STRUCTURE SCHEDULES
2. SEE SHEETS C3-20 - C3-26 FOR OVERALL UTILITY SHEETS
3. SEE SHEETS C3-30 - C3-34 FOR SANITARY PROFILES
4. SEE SHEETS C3-40 - C3-43 FOR WATERMAIN PROFILES

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

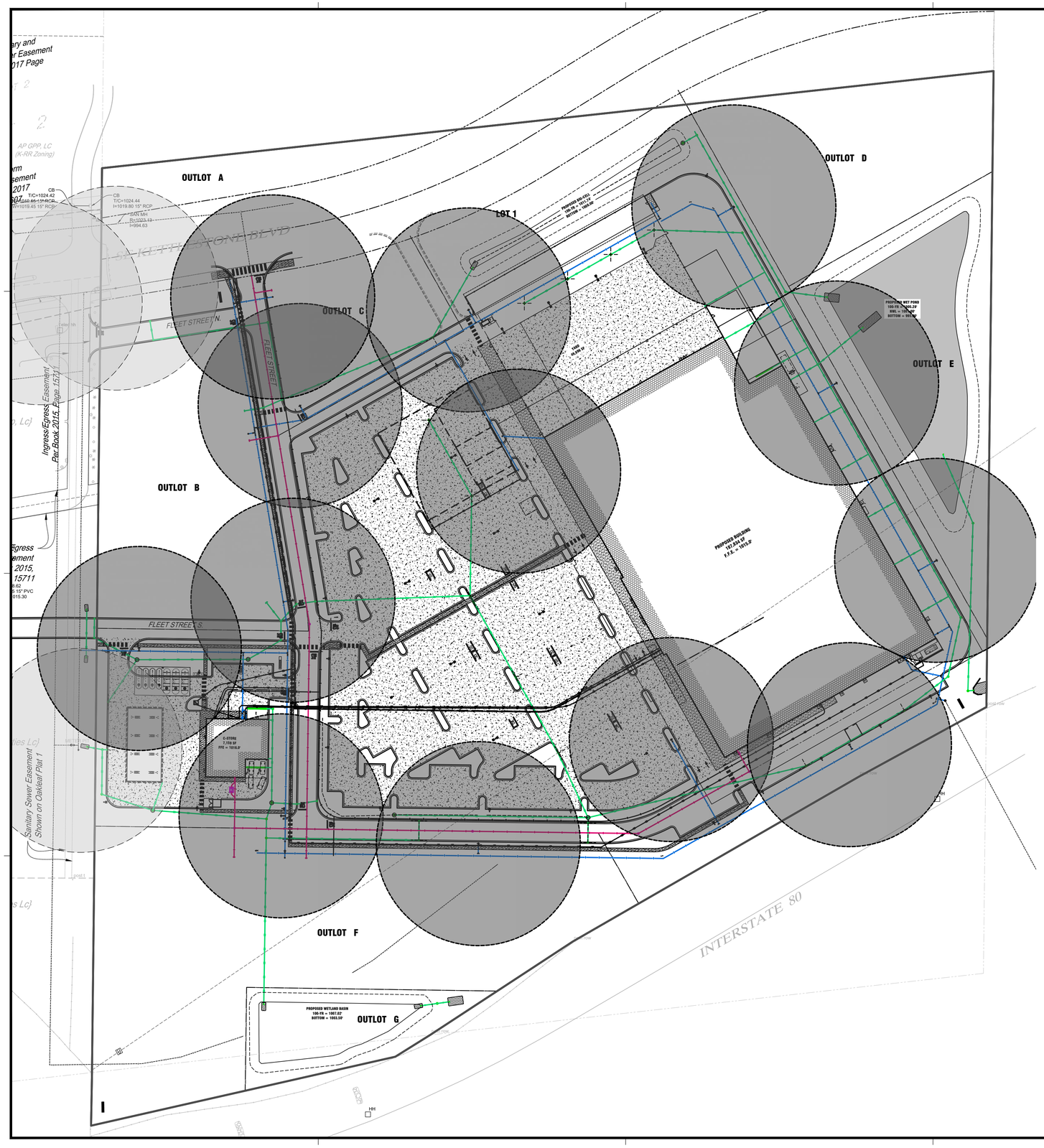
PROJECT NO.	18-22306
FILE NAME	22306 UTILITY (3 OF 3)
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

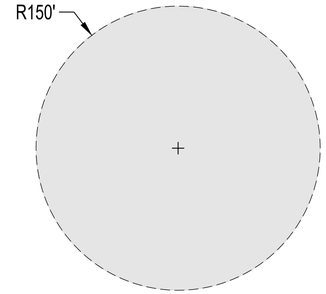
STORM SEWER PROFILES

SHEET

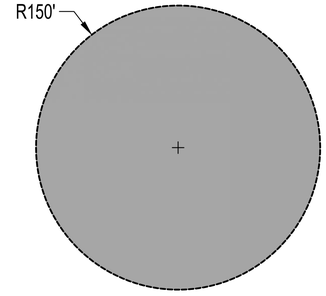
C3-56



HYDRANT COVERAGE LEGEND



EXISTING HYDRANT



PROPOSED HYDRANT

N

0 80 160

SCALE IN FEET

ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/18	REVISED PER CITY REVIEW	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

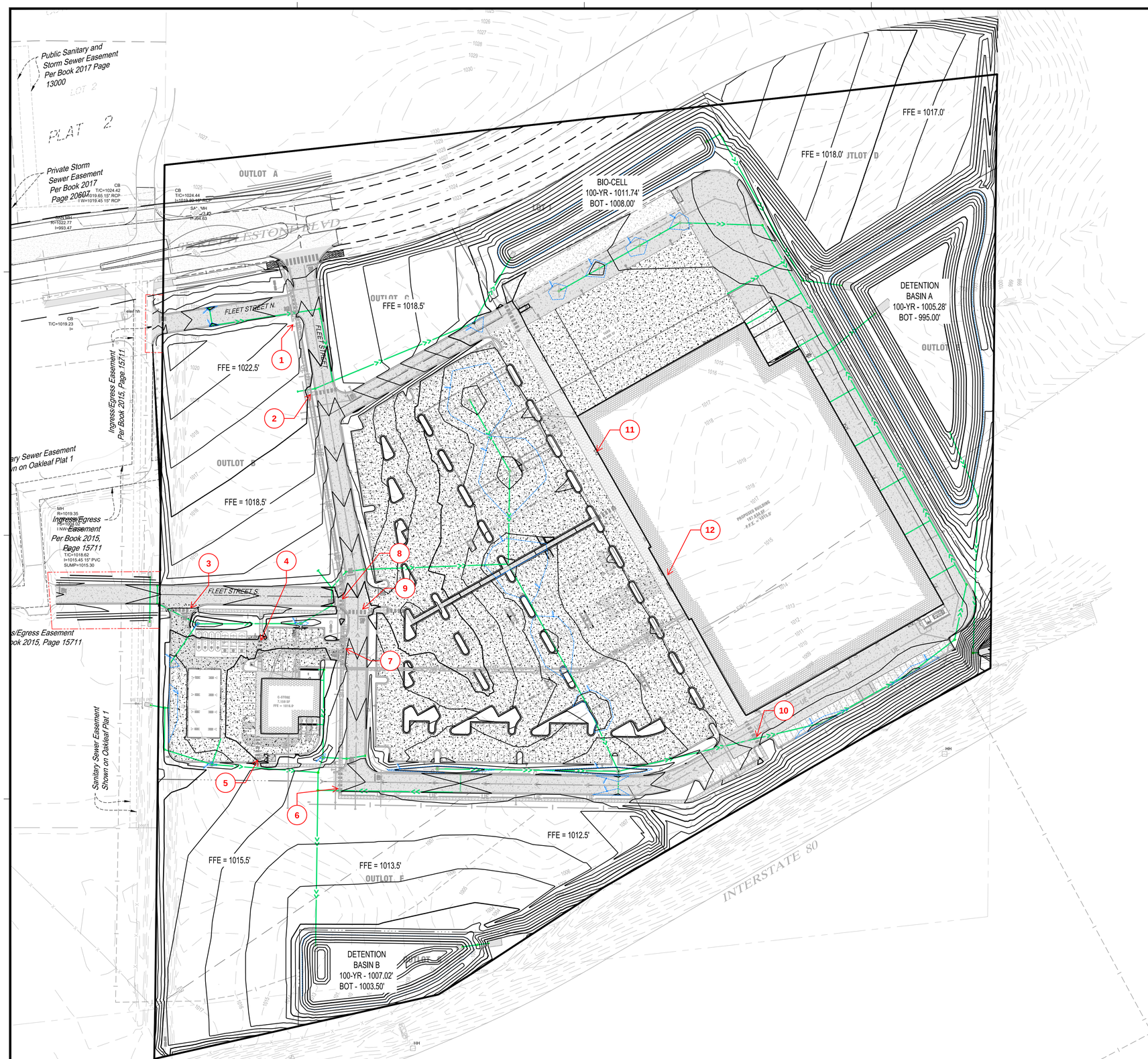
PROJECT NO.	18-22306
FILE NAME	22306 HYDRANT
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

HYDRANT COVERAGE PLAN

SHEET

C3-60



PEDESTRIAN RAMP AS-BUILT LOCATION NUMBERS PER CTI DRAWINGS

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	PER COSESCO AND GRADING REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5	AJR

PROJECT NO.	18-22306
FILE NAME	22306 GRADING
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

OVERALL GRADING PLAN

SCALE IN FEET 0 80 160

SHEET

C4-10

GRADING LEGEND

101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
XXX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
SPOT ELEVATION KEY	
LP	LOW POINT
HP	HIGH POINT
EOF	EMERGENCY OVER FLOW
CC-1	CURB CUT 1 (SEE DETAIL)
CC-2	CURB CUT 2 (SEE DETAIL)
CC-3	CURB CUT 3 (SEE DETAIL)
EOF	EMERGENCY OVER FLOW ROUTE
-X.X%	SURFACE GRADE / DIRECTION

GENERAL GRADING NOTES

EXCAVATED MATERIAL SHALL BE COMPACTED TO 100% PROCTOR DENSITY FOR THE UPPER 3', AND 95% PROCTOR DENSITY BELOW 3' IN ALL BUILDING PADS. REFER TO THE QUALITY COMPACTION METHOD IN ALL OTHER AREAS.

PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS. BUILDING PAD AND PAVEMENT HOLD DOWNS ARE NOT INCLUDED.

N

0 30 60

SCALE IN FEET

OUTLOT A

SE KETTLESTONE BLVD

SE KETTLESTONE BLVD RIGHT-OF-WAY GRADING TO BE DONE BY OTHERS

TEMPORARY CONSTRUCTION EASEMENT

Ingress/Egress Easement Per Book 2015, Page 15711

FLEET STREET N.

FLEET STREET

LIMITS OF INUNDATION IN 100-YR STORM EVENT, TYP

SEE INSET 1 ON SHEET C4-29

SEE INSET 1 ON SHEET C4-26

SEE INSET 1 ON SHEET C4-28

SEE INSET 4 ON SHEET C4-28

OUTLOT B

OUTLOT C

FFE = 1022.5'

FFE = 1018.5'

FFE = 1018.5'

-1.6%

-1.5%

-1.6%

-1.8%

3.2%

Sewer Easement on Oakleaf Plat 1

Ingress/Egress Easement Per Book 2015, Page 15711

TEMPORARY CONSTRUCTION EASEMENT

SAN MH R=1022.77 I=993.47

CB T/C=1024.42 I E=1019.65 15" RCP I W=1019.45 15" RCP

CB T/C=1024.44 I=1019.80 15" RCP

SAN MH R=1023.13 I=994.63

CB T/C=1019.23

MH R=1019.35 I NE=1004.19 I S=1004.02 I NW=1003.99

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	PER COSESCO AND GRADING REVIEW	AJR
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

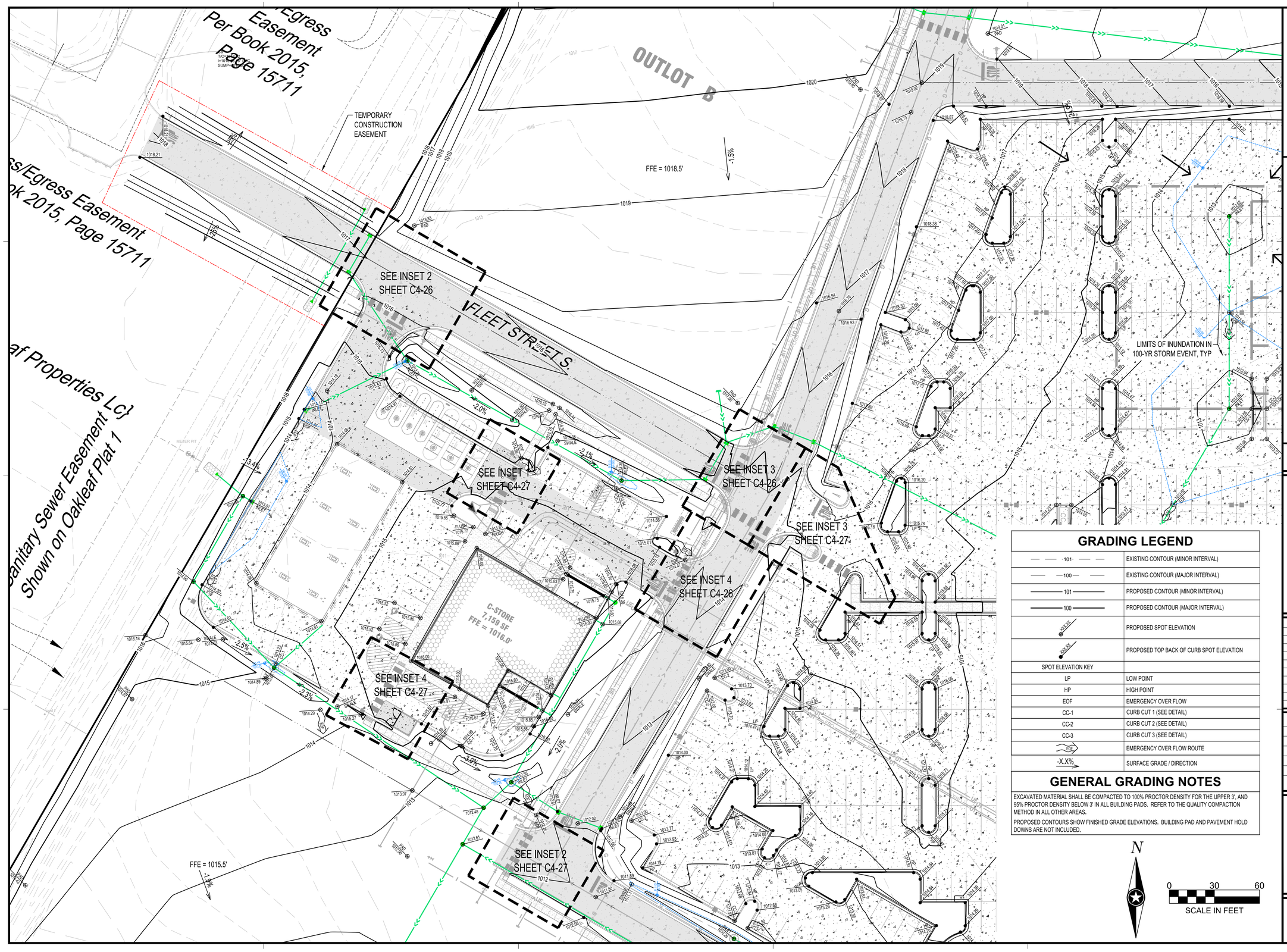
PROJECT NO.	18-22306
FILE NAME	22306 GRADING
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

DETAILED GRADING PLAN (NORTHWEST)

SHEET

C4-20



GRADING LEGEND

101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
XXX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
SPOT ELEVATION KEY	
LP	LOW POINT
HP	HIGH POINT
EOF	EMERGENCY OVER FLOW
CC-1	CURB CUT 1 (SEE DETAIL)
CC-2	CURB CUT 2 (SEE DETAIL)
CC-3	CURB CUT 3 (SEE DETAIL)
EOF	EMERGENCY OVER FLOW ROUTE
-X.X%	SURFACE GRADE / DIRECTION

GENERAL GRADING NOTES

EXCAVATED MATERIAL SHALL BE COMPACTED TO 100% PROCTOR DENSITY FOR THE UPPER 3', AND 95% PROCTOR DENSITY BELOW 3' IN ALL BUILDING PADS. REFER TO THE QUALITY COMPACTION METHOD IN ALL OTHER AREAS.

PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS. BUILDING PAD AND PAVEMENT HOLD DOWNS ARE NOT INCLUDED.

N

0 30 60

SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	PER COSESCO AND GRADING REVIEW	AJR
12/20/18	ISSUE FOR PERMIT	AJR
01/22/19	REVISED PER CITY REVIEW	AJR
02/19/19	REVISED PER CITY REVIEW #2	AJR
03/05/19	REVISED PER CITY REVIEW #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR

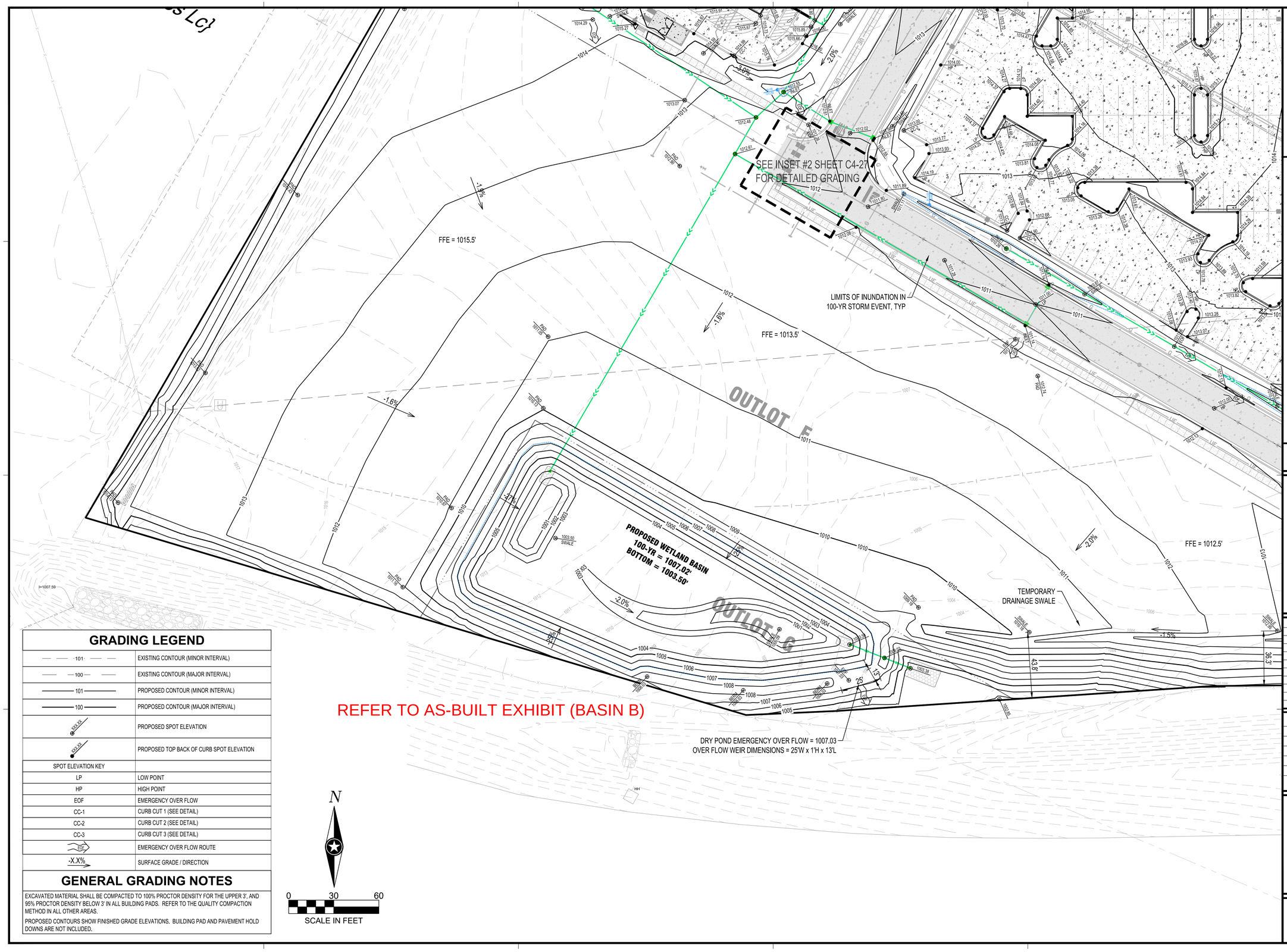
PROJECT NO.	18-22306
FILE NAME	22306 GRADING
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

DETAILED GRADING PLAN (WEST)

SHEET

C4-21



GRADING LEGEND

101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XX.XX	PROPOSED SPOT ELEVATION
XX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
SPOT ELEVATION KEY	
LP	LOW POINT
HP	HIGH POINT
EOF	EMERGENCY OVER FLOW
CC-1	CURB CUT 1 (SEE DETAIL)
CC-2	CURB CUT 2 (SEE DETAIL)
CC-3	CURB CUT 3 (SEE DETAIL)
EOF	EMERGENCY OVER FLOW ROUTE
-X.X%	SURFACE GRADE / DIRECTION

GENERAL GRADING NOTES

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
12/13/18	PER COSESCO AND GRADING REVIEW	AJR
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04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
05/29/19	CCD #4-C	JMF

PROJECT NO.	18-22306
FILE NAME	22306 GRADING
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

DETAILED GRADING PLAN (SOUTHWEST)

SHEET

C4-22

REFER TO AS-BUILT EXHIBIT (BIO-CELL)

OUTLOT C

LOT 1

FLEET STREET

FFE = 1018.5'

FFE = 1018.0'

PROPOSED BIO-CELL
100-YR = 1011.74'
BOTTOM = 1008.00'

SEE INSET 4 ON SHEET C4-28

SEE INSET 2 ON SHEET C4-28

YARD
49,896 SF

SEE SHEET C0-21 FOR RIPRAP SCHEDULE, TYP

LIMITS OF INUNDATION IN 100-YR STORM EVENT, TYP

1' CURB CUT

CC T/CURB 1013.55

CC T/CURB 1014.48

CC T/CURB 1013.40

CC T/CURB 1013.30

FLUSH 1013.46

GRADING LEGEND

101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
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EOF	EMERGENCY OVER FLOW
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CC-3	CURB CUT 3 (SEE DETAIL)
EOF	EMERGENCY OVER FLOW ROUTE
-X.X%	SURFACE GRADE / DIRECTION

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N

0 30 60

SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

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05/29/19	CCD #4-C	JMF
07/17/19	CCD #5-C	PJJ
08/07/19	CCD #6-C	WMS
09/04/19	CCD #7-C	LFO

PROJECT NO.	18-22306
FILE NAME	22306 GRADING
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

DETAILED GRADING PLAN (NORTH)

SHEET

C4-23

GRADING LEGEND

101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
XXX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
SPOT ELEVATION KEY	
LP	LOW POINT
HP	HIGH POINT
EOF	EMERGENCY OVER FLOW
CC-1	CURB CUT 1 (SEE DETAIL)
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CC-3	CURB CUT 3 (SEE DETAIL)
EOF	EMERGENCY OVER FLOW ROUTE
-X.X%	SURFACE GRADE / DIRECTION

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PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS. BUILDING PAD AND PAVEMENT HOLD DOWNS ARE NOT INCLUDED.

BUILDING PAD = SUBGRADE ELEVATION BENEATH THE BUILDING FLOOR SLAB THAT TYPICALLY EXTENDS APPROXIMATELY 5' BEYOND BUILDING FOOTPRINT.

N

0 30 60

SCALE IN FEET

REFER TO CTI DRAWINGS PAGE 5/8

12

LIMITS OF INUNDATION IN 100-YR STORM EVENT, TYP

SEE INSET 3 ON SHEET C4-28

SEE SHEET C0-21 FOR RIP RAP SCHEDULE, TYP.

EXPOSE BACK-OF-CURB WHERE NEEDED TO MAINTAIN 3:1 SLOPE

FFE = 1012.5'

INTERSTATE 80

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
07/31/19	SI #1 - CONTRACTOR COORDINATION	ART
08/07/19	CCD #6-C	WMS
09/04/19	CCD #7-C	LFO

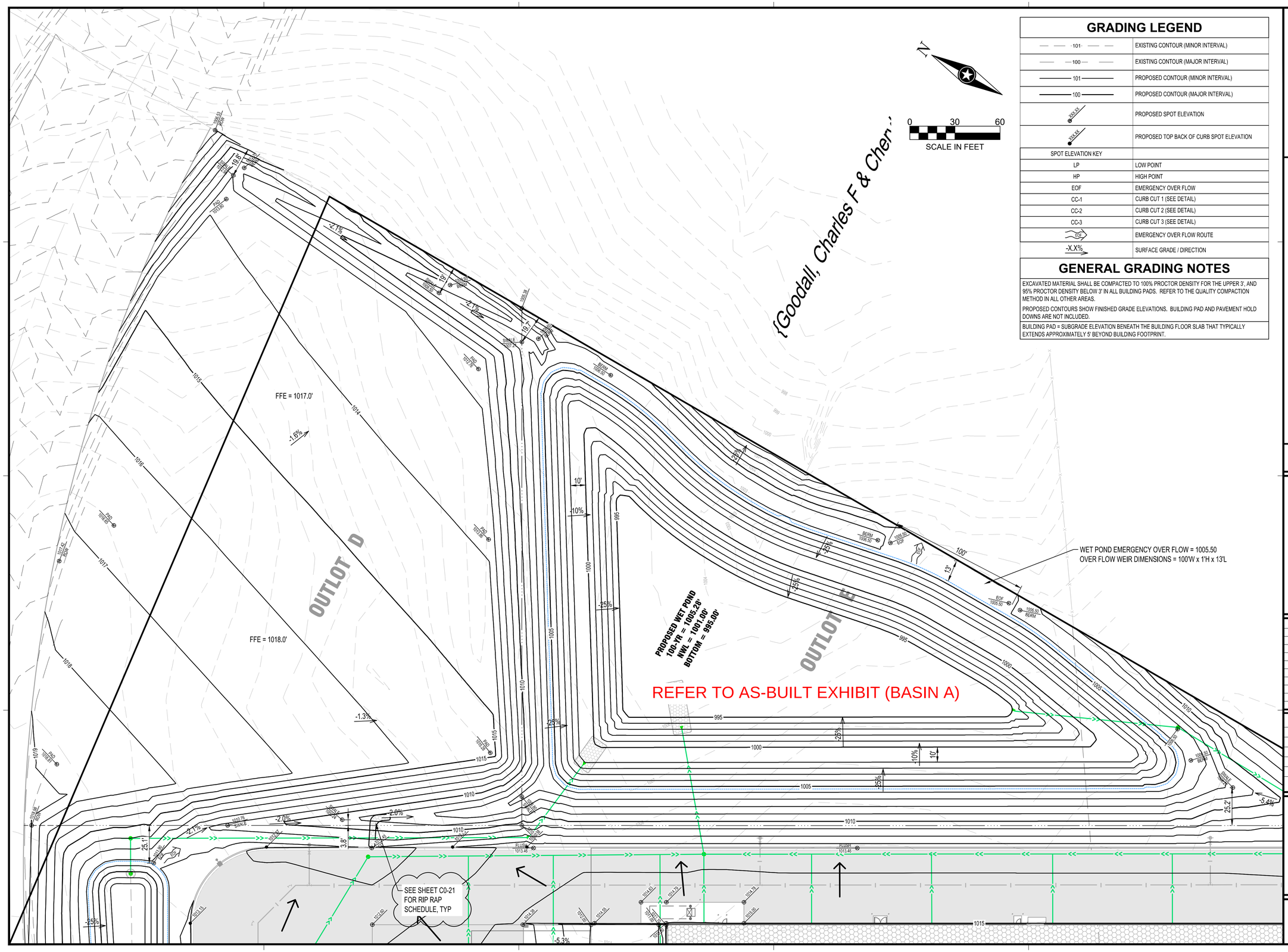
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FILE NAME	22306 GRADING
DRAWN BY	AJR
DESIGNED BY	AJR
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	11/20/18
CLIENT PROJECT NO.	-

TITLE

DETAILED GRADING PLAN (SOUTH)

SHEET

C4-24



GRADING LEGEND

101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
XX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
SPOT ELEVATION KEY	
LP	LOW POINT
HP	HIGH POINT
EOF	EMERGENCY OVER FLOW
CC-1	CURB CUT 1 (SEE DETAIL)
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CC-3	CURB CUT 3 (SEE DETAIL)
EOF	EMERGENCY OVER FLOW ROUTE
-X.X%	SURFACE GRADE / DIRECTION

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ISG

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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09/04/19	CCD #7-C	LFO

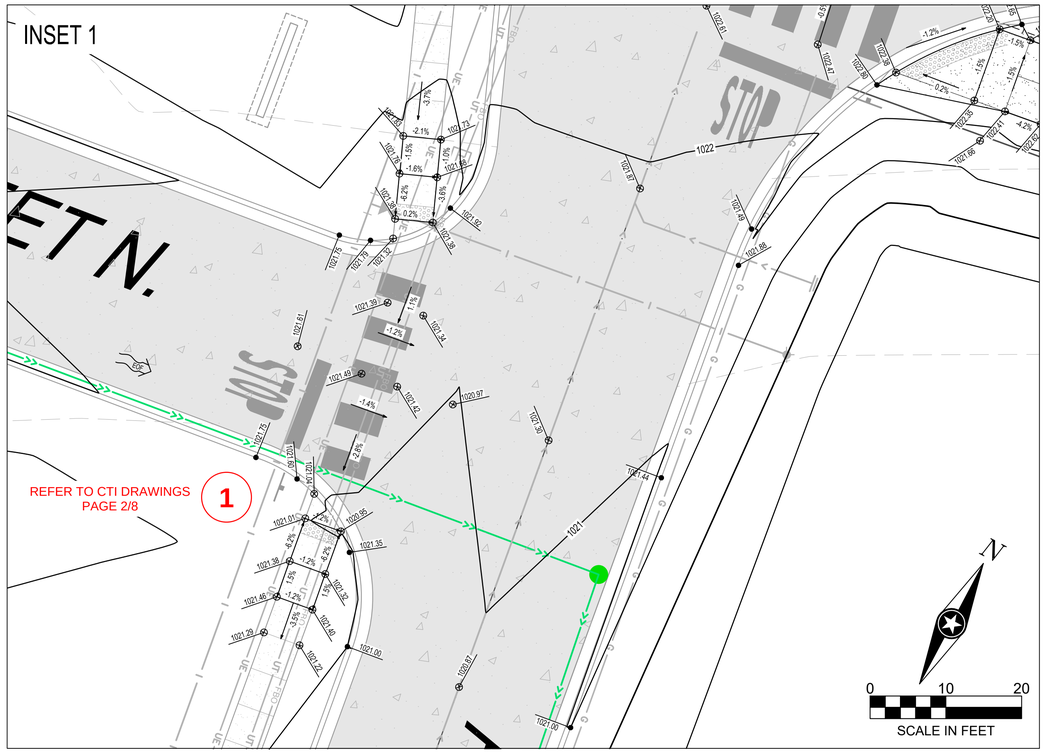
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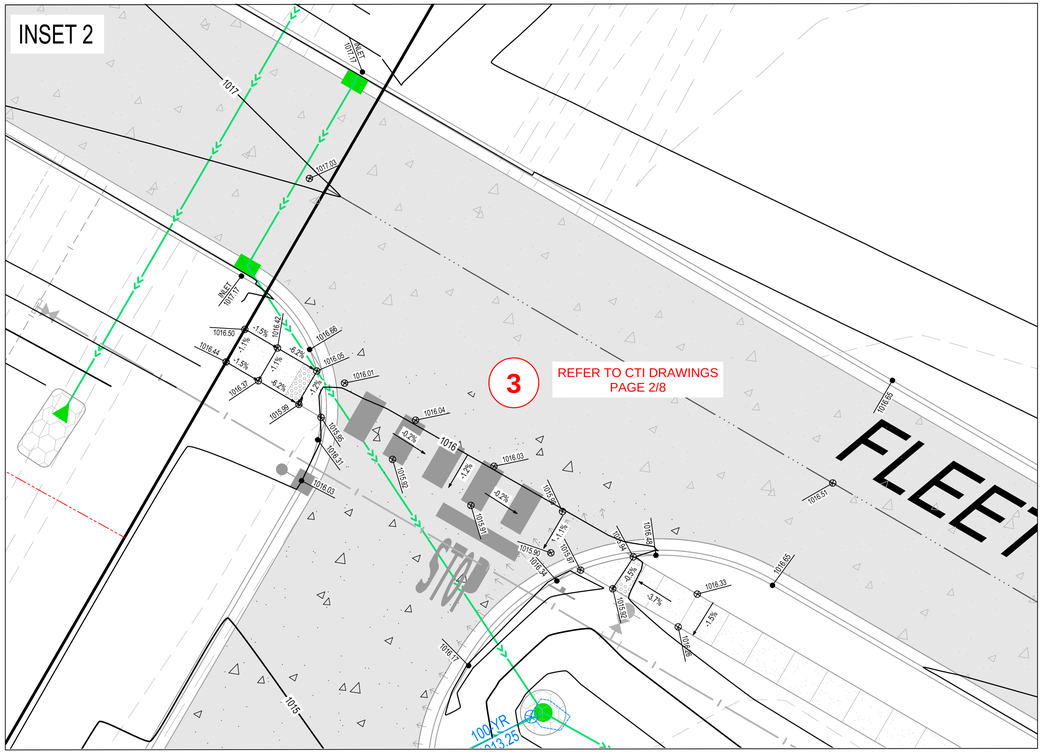
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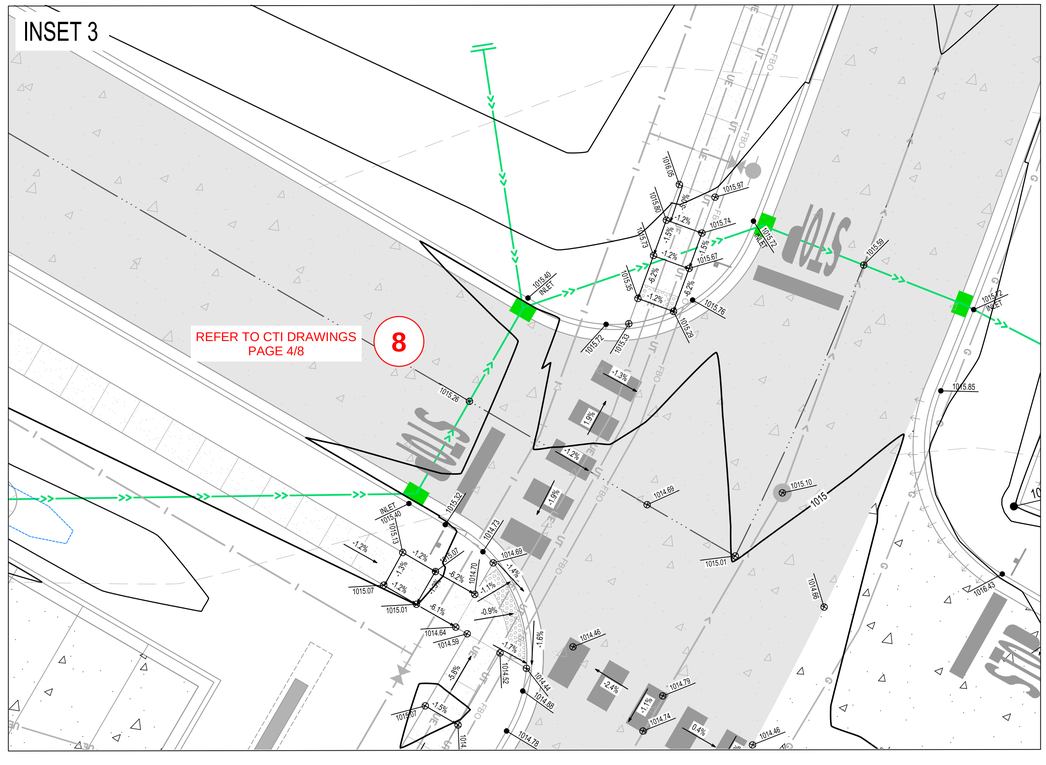
DETAILED GRADING PLAN (EAST)

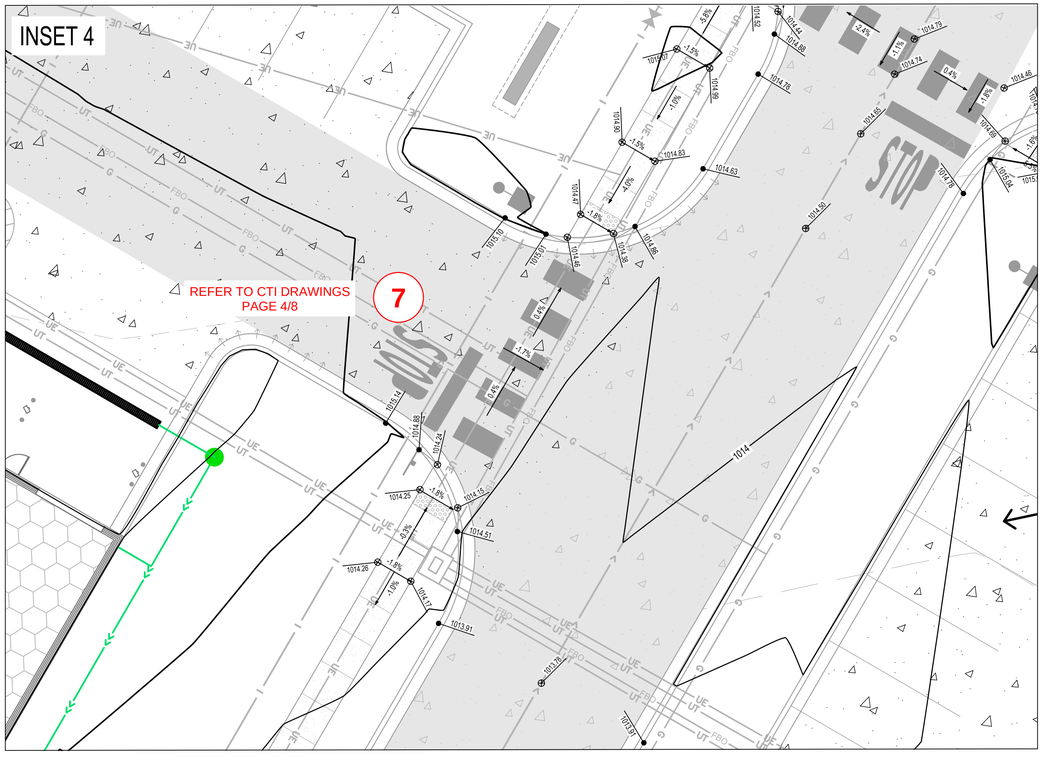
SHEET

C4-25









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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

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04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR

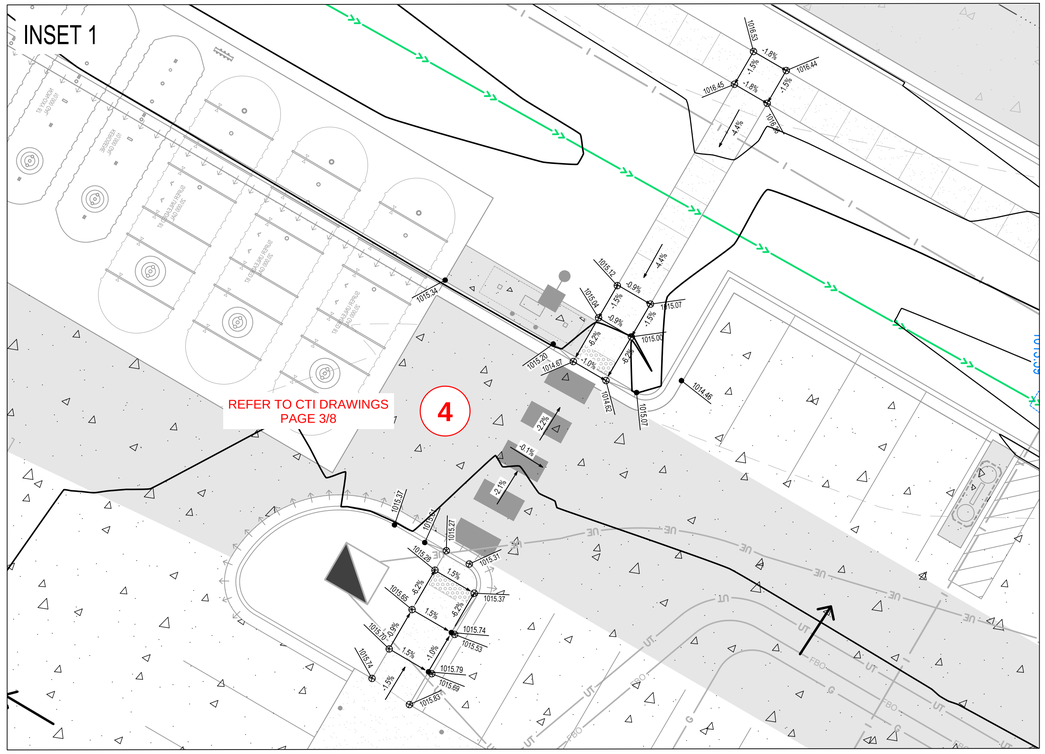
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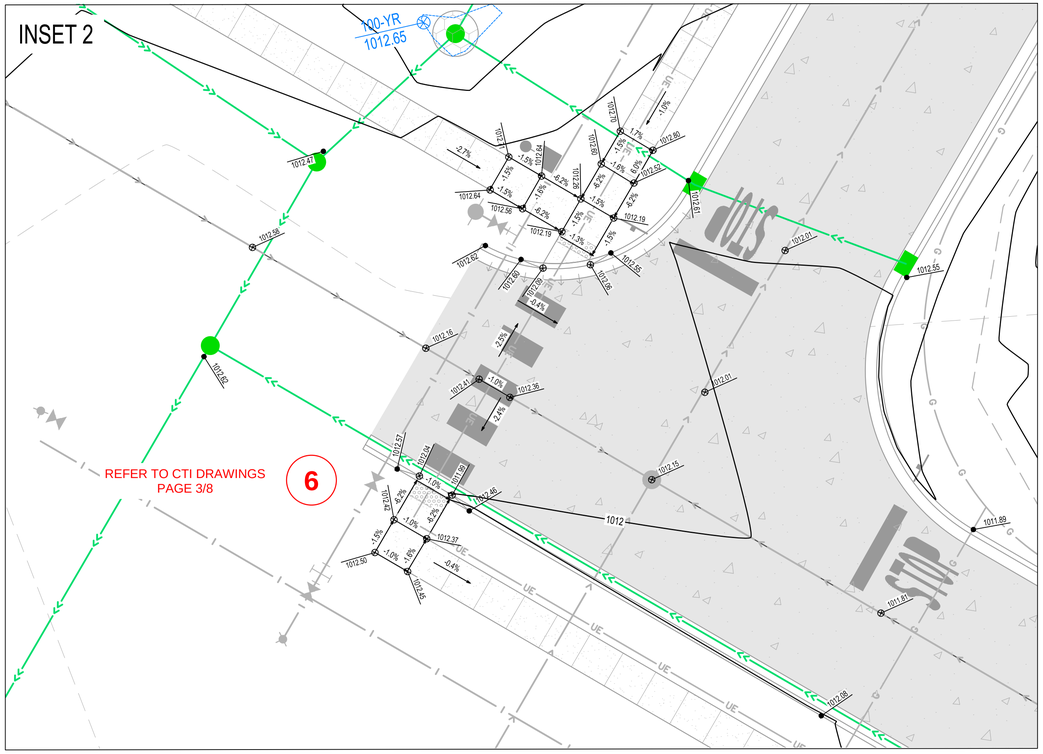
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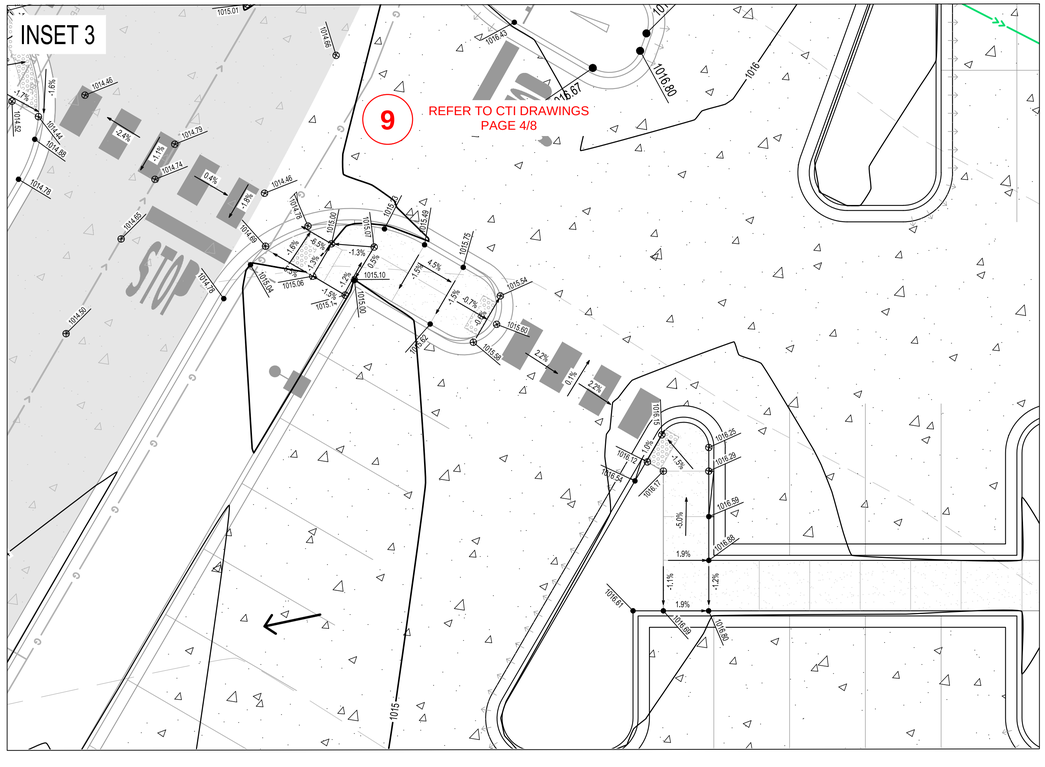
DETAILED GRADING INTERSECTIONS

SHEET

C4-26









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PROPOSED RETAIL DEVELOPMENT

HURD REALTY

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03/05/19	REVISED PER CITY REVIEW #3	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
05/29/19	CCD #4-C	JMF

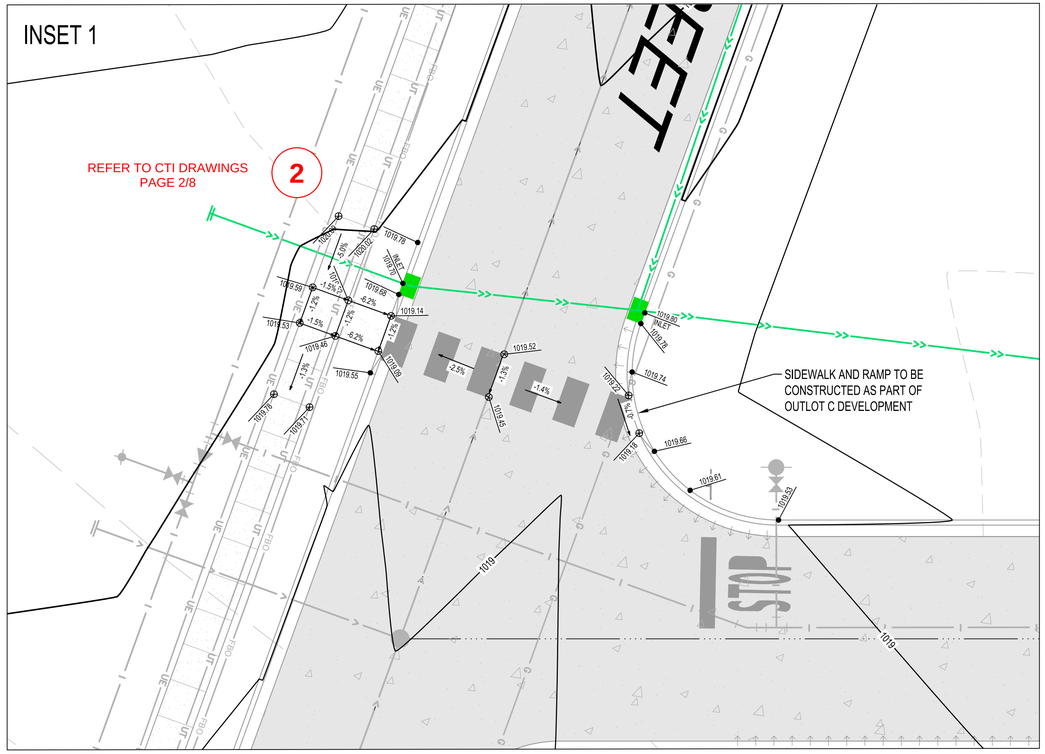
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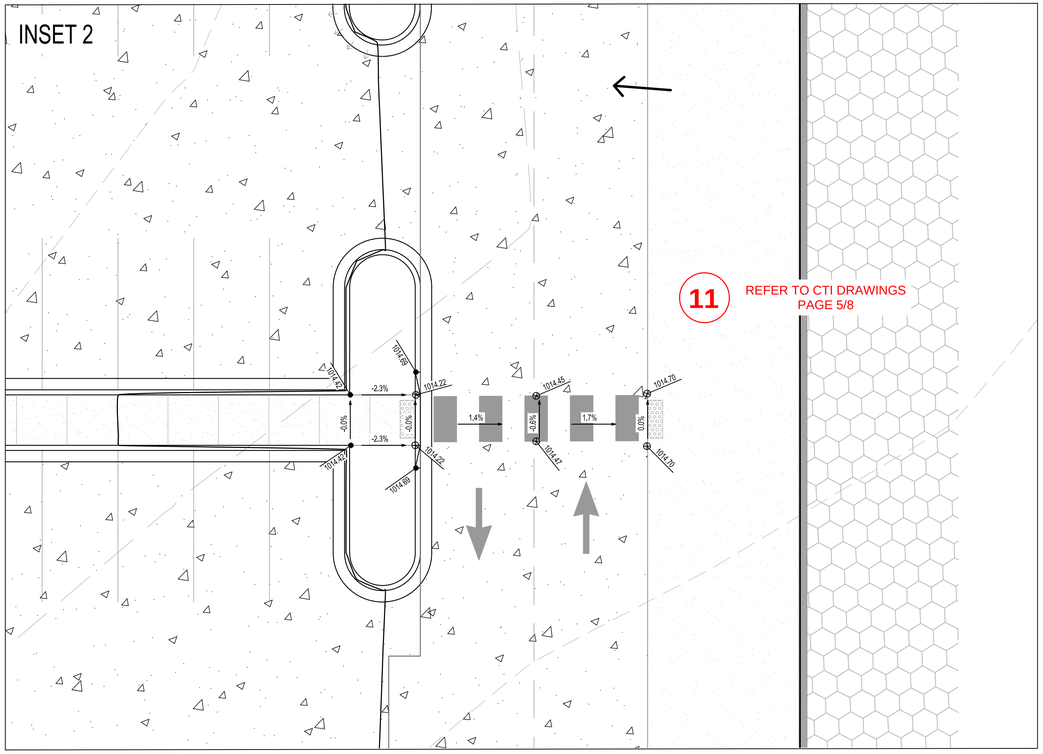
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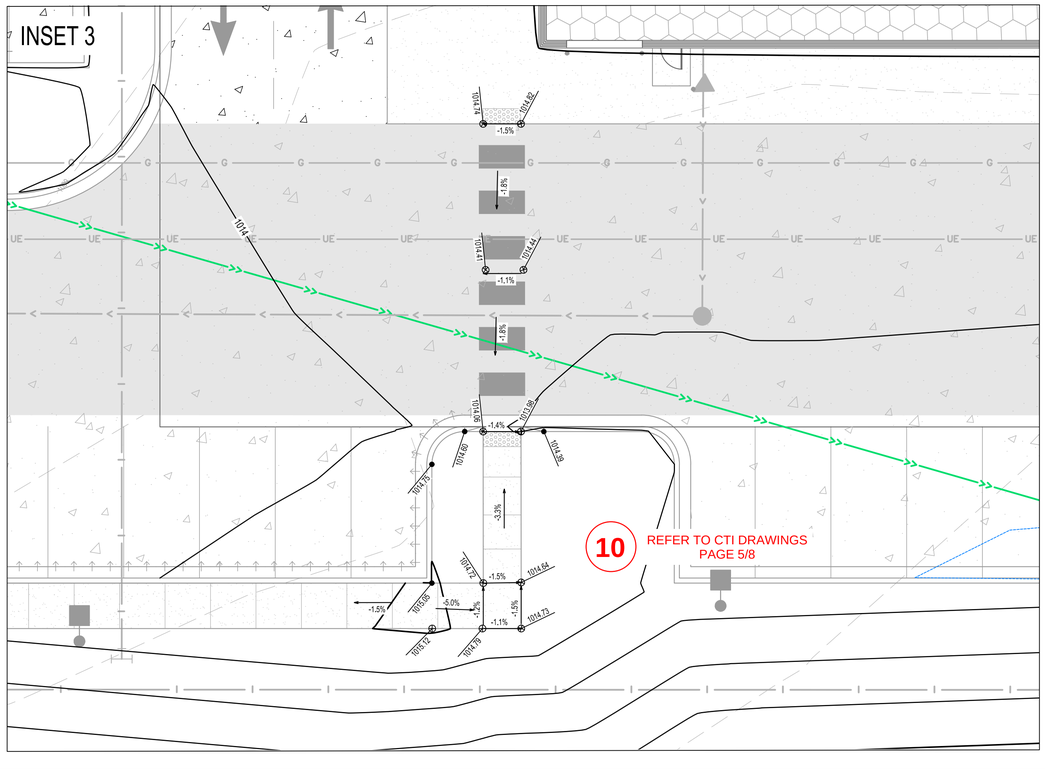
DETAILED GRADING INTERSECTIONS

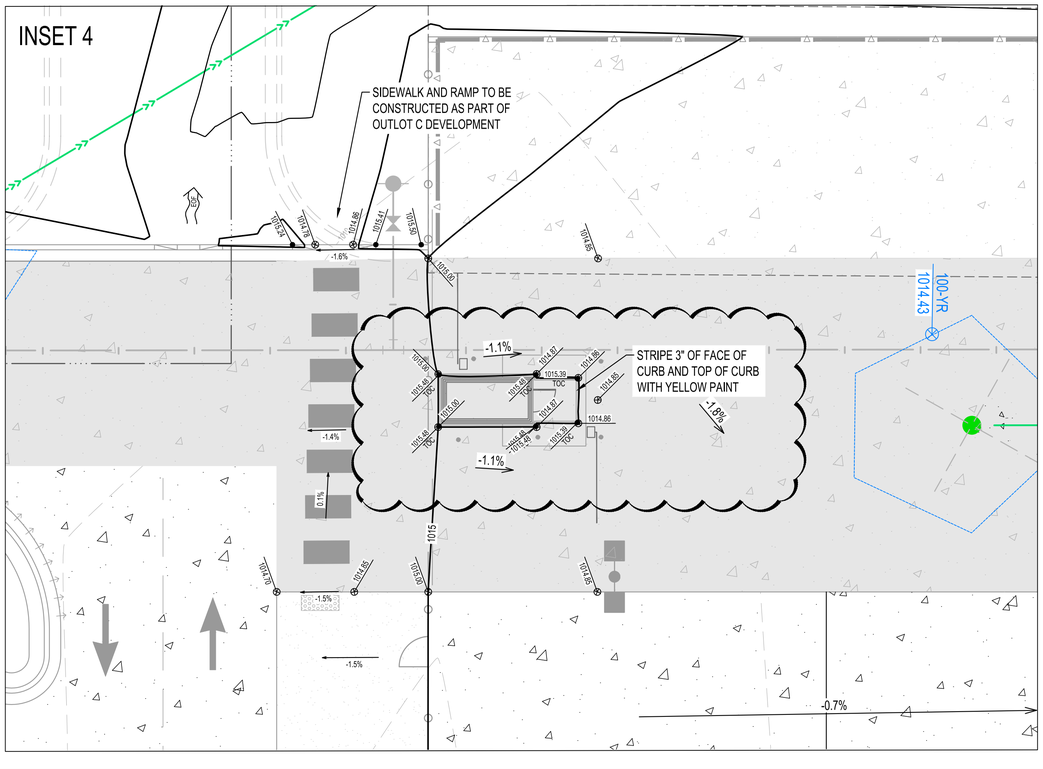
SHEET

C4-27









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0 10 20
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DATE	DESCRIPTION	BY
03/05/19	REVISED PER CITY REVIEW #3	AJR
05/29/19	CCD #4-C	JMF
08/07/19	CCD #6-C	WMS

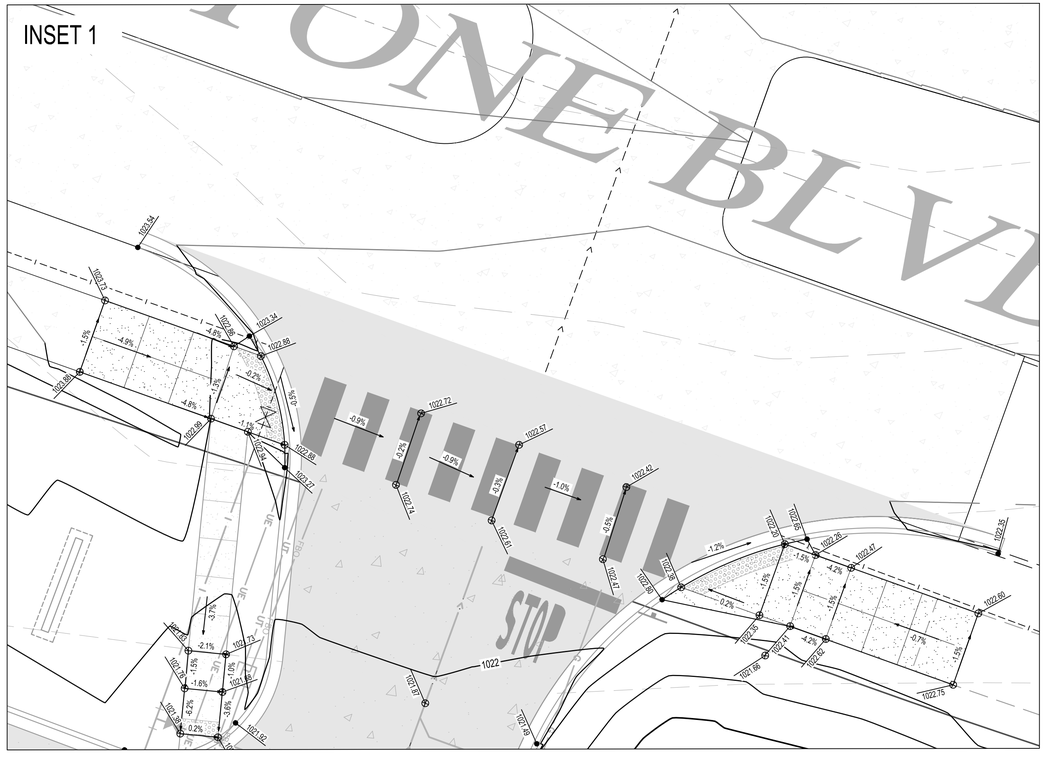
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REVIEWED BY	JDF
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TITLE

DETAILED GRADING INTERSECTIONS

SHEET

C4-28



ISG

N

0 10 20

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REVISION SCHEDULE

DATE	DESCRIPTION	BY
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	WMS

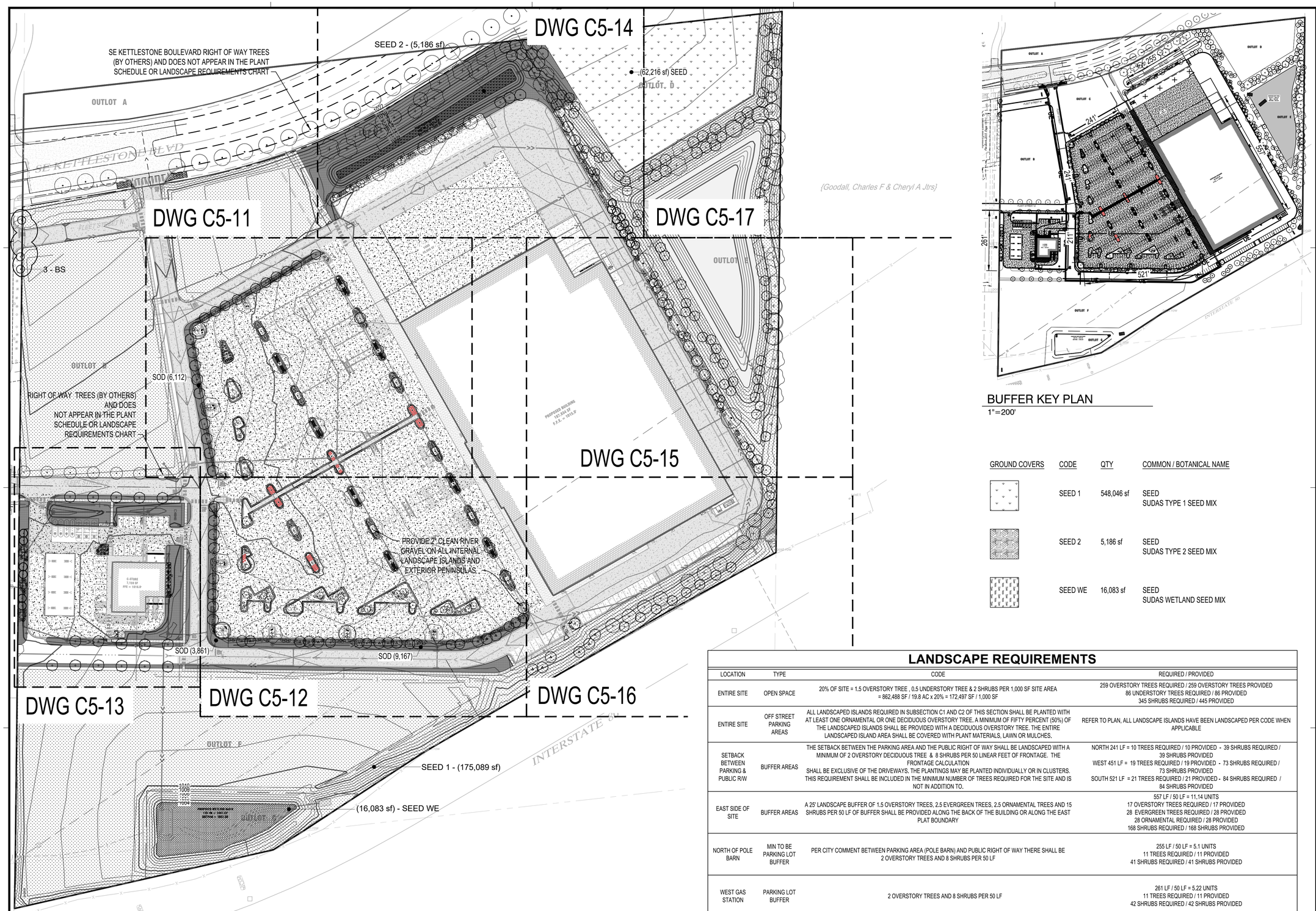
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DETAILED GRADING INTERSECTIONS

SHEET

C4-29



BUFFER KEY PLAN
1"=200'

GROUND COVERS	CODE	QTY	COMMON / BOTANICAL NAME
	SEED 1	548,046 sf	SEED SUDAS TYPE 1 SEED MIX
	SEED 2	5,186 sf	SEED SUDAS TYPE 2 SEED MIX
	SEED WE	16,083 sf	SEED SUDAS WETLAND SEED MIX

LANDSCAPE REQUIREMENTS

LOCATION	TYPE	CODE	REQUIRED / PROVIDED
ENTIRE SITE	OPEN SPACE	20% OF SITE = 1.5 OVERSTORY TREE , 0.5 UNDERSTORY TREE & 2 SHRUBS PER 1,000 SF SITE AREA = 862,488 SF / 19.8 AC x 20% = 172,497 SF / 1,000 SF	259 OVERSTORY TREES REQUIRED / 259 OVERSTORY TREES PROVIDED 86 UNDERSTORY TREES REQUIRED / 86 PROVIDED 345 SHRUBS REQUIRED / 445 PROVIDED
ENTIRE SITE	OFF STREET PARKING AREAS	ALL LANDSCAPED ISLANDS REQUIRED IN SUBSECTION C1 AND C2 OF THIS SECTION SHALL BE PLANTED WITH AT LEAST ONE ORNAMENTAL OR ONE DECIDUOUS OVERSTORY TREE. A MINIMUM OF FIFTY PERCENT (50%) OF THE LANDSCAPED ISLANDS SHALL BE PROVIDED WITH A DECIDUOUS OVERSTORY TREE. THE ENTIRE LANDSCAPED ISLAND AREA SHALL BE COVERED WITH PLANT MATERIALS, LAWN OR MULCHES.	REFER TO PLAN, ALL LANDSCAPE ISLANDS HAVE BEEN LANDSCAPED PER CODE WHEN APPLICABLE
SETBACK BETWEEN PARKING & PUBLIC R/W	BUFFER AREAS	THE SETBACK BETWEEN THE PARKING AREA AND THE PUBLIC RIGHT OF WAY SHALL BE LANDSCAPED WITH A MINIMUM OF 2 OVERSTORY DECIDUOUS TREE & 8 SHRUBS PER 50 LINEAR FEET OF FRONTAGE. THE FRONTAGE CALCULATION SHALL BE EXCLUSIVE OF THE DRIVEWAYS. THE PLANTINGS MAY BE PLANTED INDIVIDUALLY OR IN CLUSTERS. THIS REQUIREMENT SHALL BE INCLUDED IN THE MINIMUM NUMBER OF TREES REQUIRED FOR THE SITE AND IS NOT IN ADDITION TO.	NORTH 241 LF = 10 TREES REQUIRED / 10 PROVIDED - 39 SHRUBS REQUIRED / 39 SHRUBS PROVIDED WEST 451 LF = 19 TREES REQUIRED / 19 PROVIDED - 73 SHRUBS REQUIRED / 73 SHRUBS PROVIDED SOUTH 521 LF = 21 TREES REQUIRED / 21 PROVIDED - 84 SHRUBS REQUIRED / 84 SHRUBS PROVIDED
EAST SIDE OF SITE	BUFFER AREAS	A 25' LANDSCAPE BUFFER OF 1.5 OVERSTORY TREES, 2.5 EVERGREEN TREES, 2.5 ORNAMENTAL TREES AND 15 SHRUBS PER 50 LF OF BUFFER SHALL BE PROVIDED ALONG THE BACK OF THE BUILDING OR ALONG THE EAST PLAT BOUNDARY	557 LF / 50 LF = 11.14 UNITS 17 OVERSTORY TREES REQUIRED / 17 PROVIDED 28 EVERGREEN TREES REQUIRED / 28 PROVIDED 28 ORNAMENTAL REQUIRED / 28 PROVIDED 168 SHRUBS REQUIRED / 168 SHRUBS PROVIDED
NORTH OF POLE BARN	MIN TO BE PARKING LOT BUFFER	PER CITY COMMENT BETWEEN PARKING AREA (POLE BARN) AND PUBLIC RIGHT OF WAY THERE SHALL BE 2 OVERSTORY TREES AND 8 SHRUBS PER 50 LF	255 LF / 50 LF = 5.1 UNITS 11 TREES REQUIRED / 11 PROVIDED 41 SHRUBS REQUIRED / 41 SHRUBS PROVIDED
WEST GAS STATION	PARKING LOT BUFFER	2 OVERSTORY TREES AND 8 SHRUBS PER 50 LF	261 LF / 50 LF = 5.22 UNITS 11 TREES REQUIRED / 11 PROVIDED 42 SHRUBS REQUIRED / 42 SHRUBS PROVIDED

ISG

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

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0 80 160
SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY COMMENTS	AJR
02/19/19	REVISED PER CITY COMMENTS #2	AJR
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03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
04/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	AJR

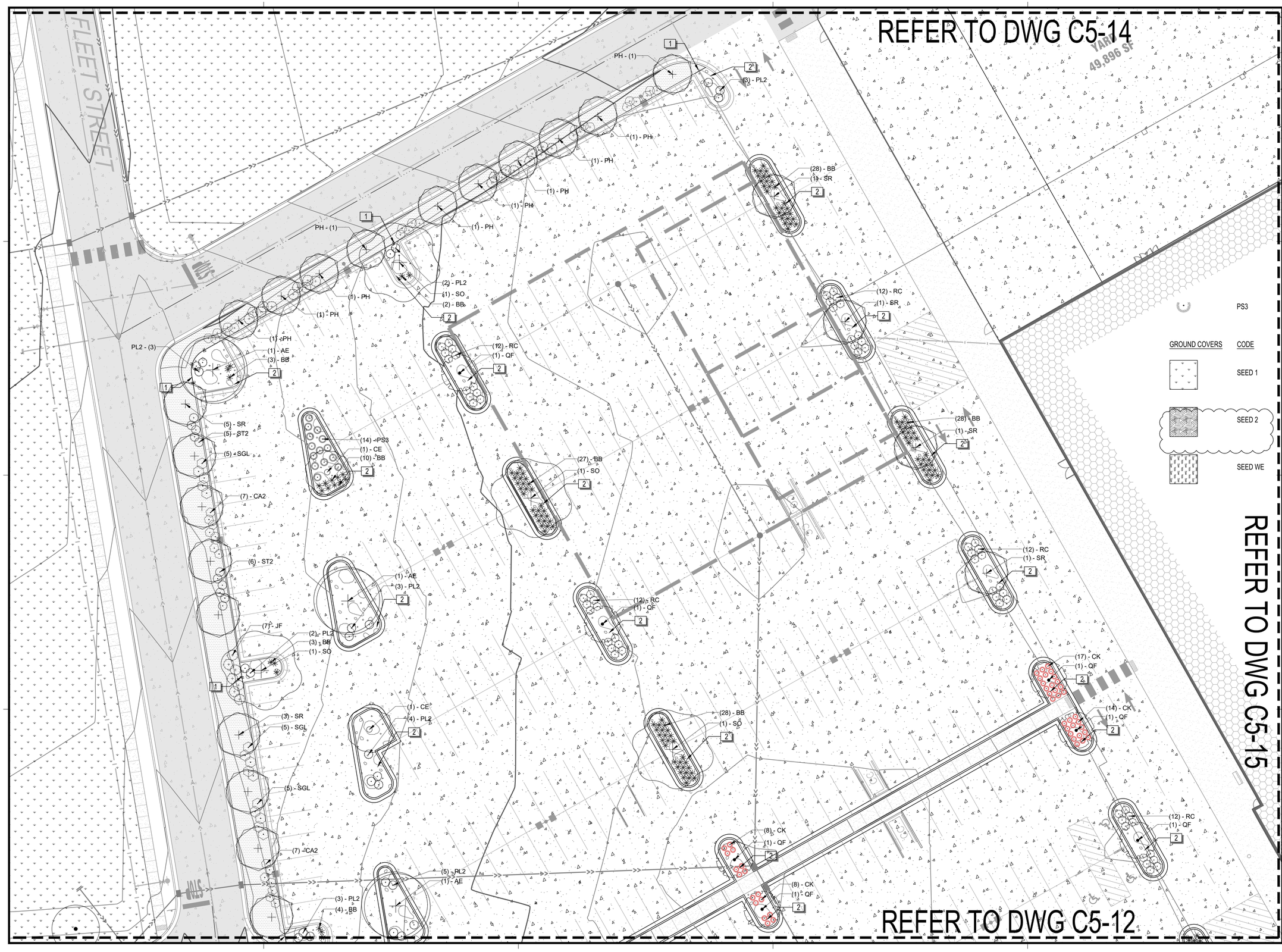
PROJECT NO.	18-22306
FILE NAME	22306 LANDSCAPE
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

OVERALL SITE RESTORATION + PLANTING PLAN

SHEET

C5-10



ISG

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY COMMENTS	AJR
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PROJECT NO.	18-22306
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DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

PLANTING PLAN (NORTH+WEST)

SHEET

C5-11

REFER TO DWG C5-11

REFER TO DWG C5-13

STOP

(6) - ST2
(3) - SR
(5) - SGL
(6) - CA2
(3) - SGL
(7) - JF
(2) - PL2
(1) - SO
(3) - BB
(2) - SGL
(4) - SR
(7) - CA2
(5) - ST2
(7) - CA2
(7) - JF
(1) - AE
(2) - BB
VC - (8)
(4) - SGL
SGL - (6)
BB - (2)
SO - (1)
PL2 - (2)
VC - (3)
JF - (5)
VC - (6)
VC - (3)
SGL - (3)
JF - (5)
SGL - (2)
PH - (1)
BB - (2)
AE - (1)
PL2 - (2)
JF - (4)
PH - (2)
VC - (6)
SGL - (5)
JF - (5)
PH - (2)
BB - (2)
SO - (1)
PL2 - (2)
SGL - (5)
PH - (2)
VC - (5)
JF - (5)
JF - (4)
SGL - (4)
PH - (3)
BH - (2)
BH - (3)
SGL - (7)
BH - (3)
CK - (14)
QF - (1)
(14) - CK
(1) - QF
(1) - QF
(12) - RC
(1) - CE
(8) - CK
(1) - AE
(4) - JF
JF - (7)
BF - (4)
(1) - AE
(24) - CK
(1) - CE
JF - (6)
BF - (4)
(28) - BB
(1) - SO
(12) - RC
(1) - QF
(28) - BB
(1) - SO
(7) - CA2
(5) - BF
(6) - JF
CA2 - (3)
JF - (8)
BF - (5)
BB - (28)
QF - (1)
(12) - RC
(1) - QF
(28) - BB
(1) - SR
(12) - RC
(1) - SR
SR - (1)
PL2 - (3)
SGL - (2)
VC - (6)
PS3
SEED 1 - (175,089 sf)

GROUND COVERS	CODE
	SEED 1
	SEED 2
	SEED WE

ISG

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

N

0 20 40

SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

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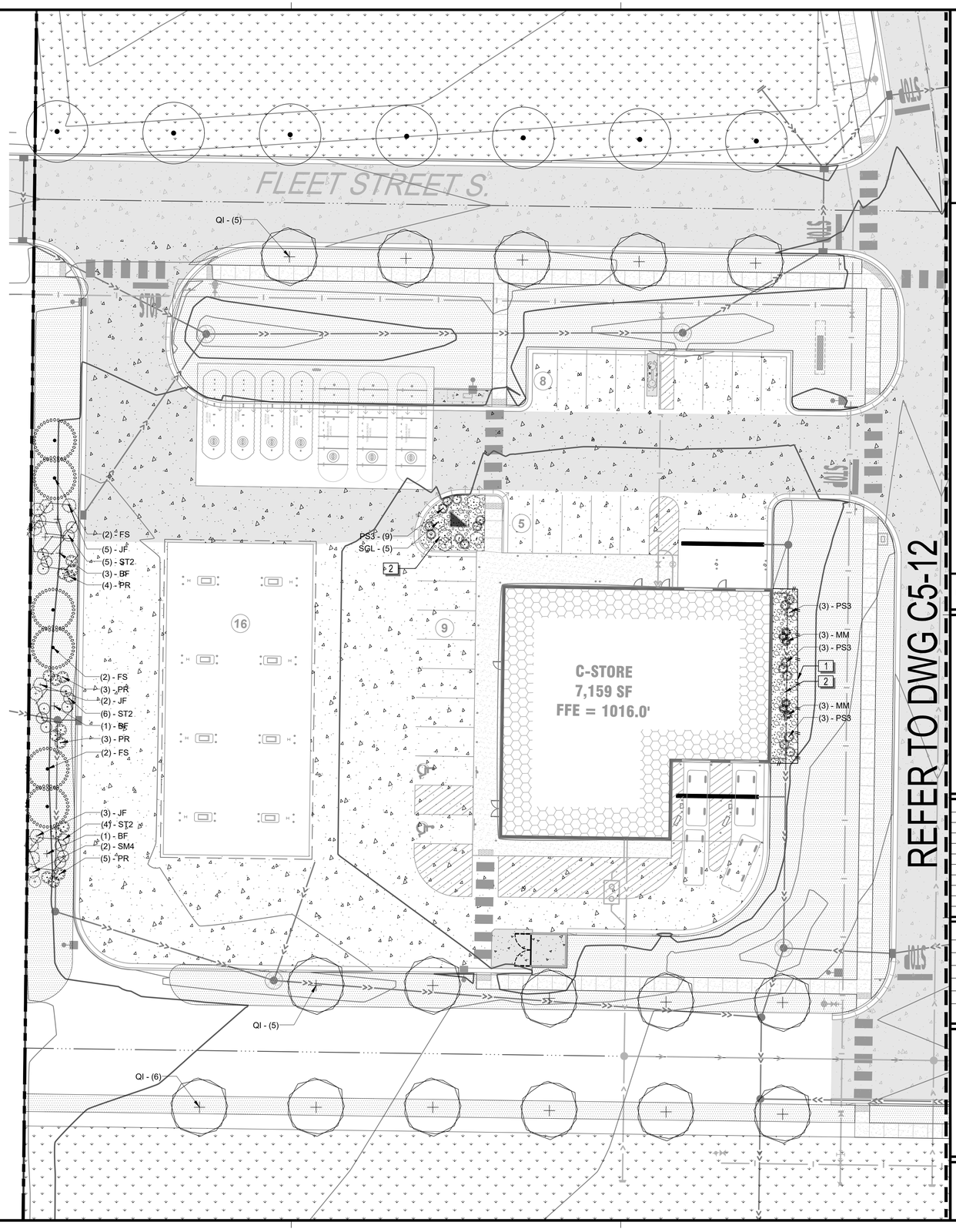
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DESIGNED BY	--
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ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

PLANTING PLAN (WEST + SOUTH)

SHEET

C5-12



PS3

GROUND COVERS	CODE
	SEED 1
	SEED 2
	SEED WE

ISG

PLANT SCHEDULE NOTE

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N

0 20 40

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PROPOSED RETAIL DEVELOPMENT

HURD REALTY

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CLIENT PROJECT NO.	-

TITLE

PLANTING PLAN (C-STORE)

SHEET

C5-13

PS3

GROUND COVERS	CODE
	SEED 1
	SEED 2
	SEED WE

SE KETTLESTONE BOULEVARD RIGHT OF TREES (BY OTHERS) AND DOES NOT APPEAR IN THE PLANT SCHEDULE OR LANDSCAPE REQUIREMENTS CHART

LOT 1

PROPOSED BIO-CELL
100-YR = 1011.74'
BOTTOM = 1008.00'

SEED 2 - (5,186 sf)

SO - (5)

(11) - CO
(3) - UO
(3) - CO
(5) - PH

UO - (6)

SO - (3)

CO - (3)

UO - (1)

PL2 - (9)

SC - (2)

JF - (2)
UO - (1)

PL2 - (9)
SC - (1)

PL2 - (9)
UO - (1)

JF - (3)

SC - (3)
PL2 - (9)
UO - (1)

(3) - SM2
(4) - VA
(3) - JF
(1) - CO
(5) - CA2

(1) - CO
(5) - SGL
(3) - SM2
(3) - JQ

(3) - PH
(3) - PH
SO - (1)

(3) - JF
(3) - PR
(5) - SGL
(3) - SM2
(3) - TE
(3) - SGL

(3) - SM2
(5) - VA
(4) - JF
(4) - CA2

(3) - SGL
(5) - ST2
(3) - FS
(6) - PS4
PH - (2)

(1) - FS

REFER TO DWG C5-12

REFER TO DWG C5-15

ISG

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

N

0 20 40
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PROPOSED RETAIL DEVELOPMENT

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TITLE

PLANTING PLAN (NORTH + EAST)

SHEET

C5-14

REFER TO DWG C5-14

REFER TO DWG C5-11

OUTLOT E

PROPOSED BUILDING
187,834 SF
F.F.E. = 1015.0'

(3) - PR
(2) - PS
(5) - SM2
(1) - TE
(4) - PR
PH - (2)

(1) - AP
(5) - SGL
(1) - TE
(3) - ST2
(4) - PR
(3) - JO
(2) - ST2

PH - (1)

(3) - PH
(5) - PR
(1) - JO
PH - (3)

(1) - AR
(6) - ST2
(2) - TE

(1) - CO
(6) - VA
(5) - JF
(1) - CO

(7) - CA2
(1) - CO

(5) - PH

(4) - JF
(6) - VA

(3) - PH

(3) - TE
(4) - SM2
(3) - PR
(2) - CA2

(3) - CA2
(4) - PR
(5) - ST2
(2) - JF

(3) - JO
(5) - PR
(3) - PH

(4) - SO

(4) - PH

(3) - AE

(7) - PH

(4) - SO
(8) - PH

GROUND COVERS	CODE
	PS3
	SEED 1
	SEED 2
	SEED WE

N

0 20 40
SCALE IN FEET

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

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TITLE

PLANTING PLAN (EAST A)

SHEET

C5-15

REFER TO DWG C5-15

REFER TO DWG C5-12

(5) - PH
(3) - UO
(3) - UO
(4) - PH
(4) - PH
(4) - UO
(6) - BH
SR - (1)
BB - (3)
PL2 - (6)
15
15
10
1
2
1
2
1
1

80

PS3

GROUND COVERS	CODE
	SEED 1
	SEED 2
	SEED WE

ISG

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

N

0 20 40

SCALE IN FEET

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PROJECT

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HURD REALTY

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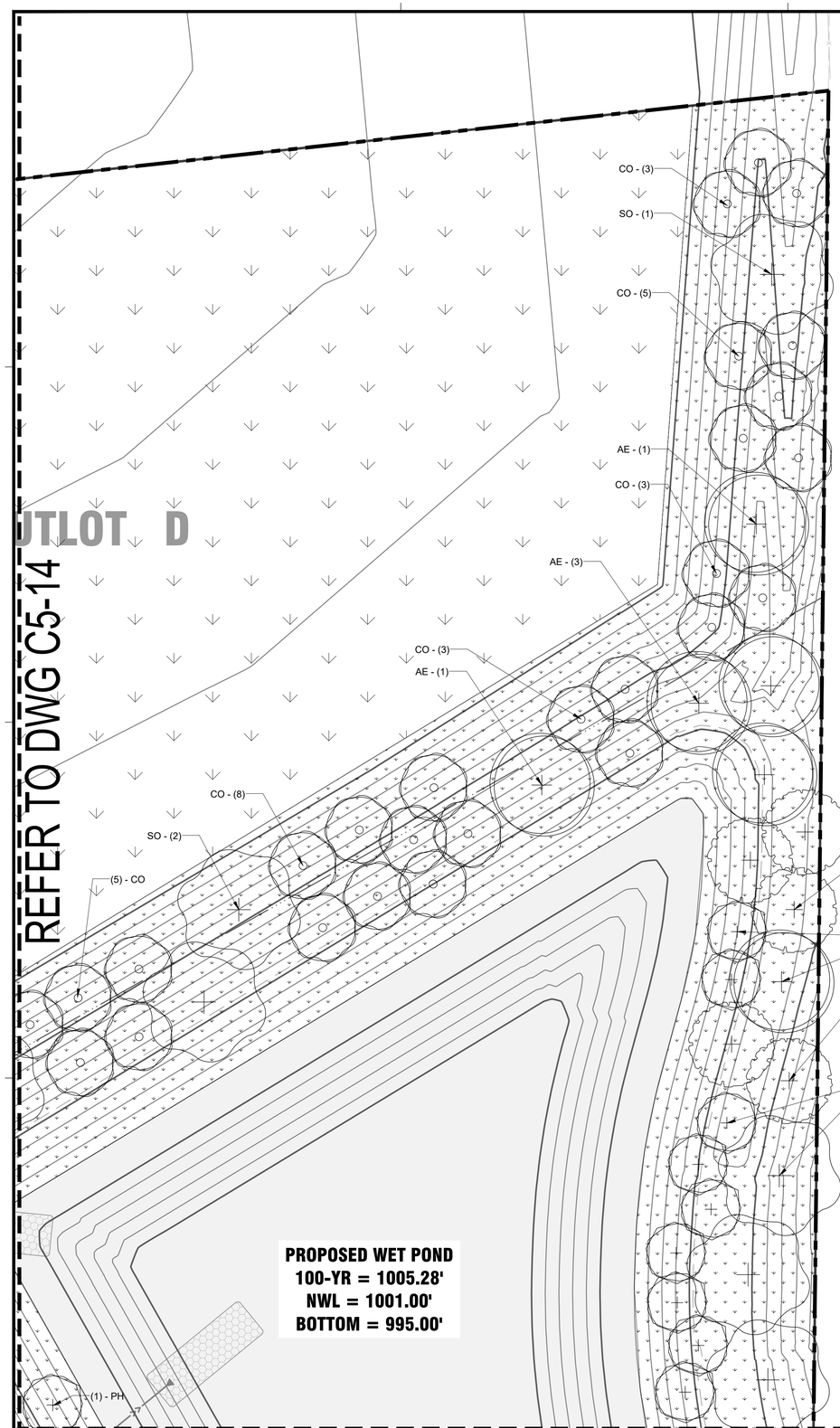
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FILE NAME	22306 LANDSCAPE
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

PLANTING PLAN (SOUTH)

SHEET

C5-16



{Goodall, Charles F & Cheryl A Jtrs}

PS3

GROUND COVERS	CODE
	SEED 1
	SEED 2
	SEED WE

ISG

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

N

0 20 40

SCALE IN FEET

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

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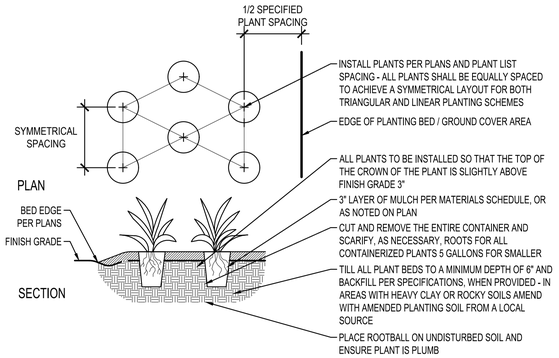
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DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

PLANTING PLAN (EAST B)

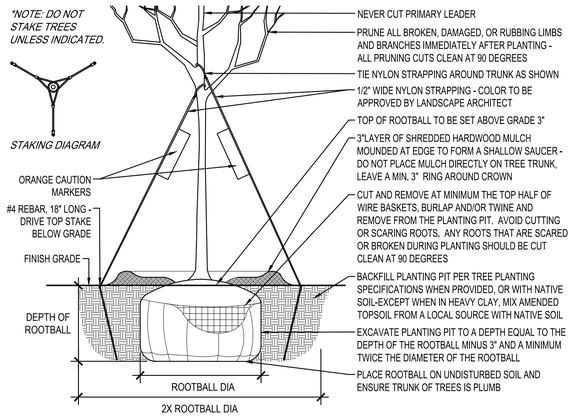
SHEET

C5-17



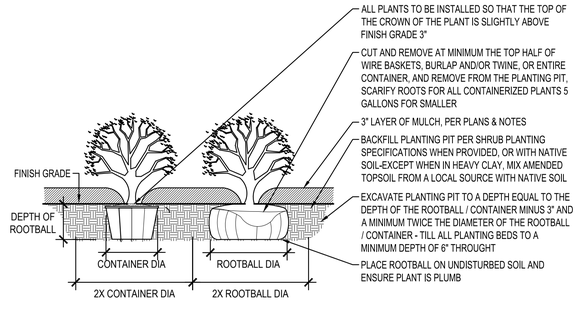
PERENNIAL PLANTING DETAIL

SCALE: 1" = 1'-0"



DECIDUOUS TREE PLANTING DETAIL

SCALE: 1" = 1'-0"

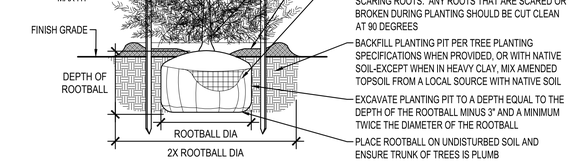


SHRUB PLANTING DETAIL

SCALE: 1" = 1'-0"

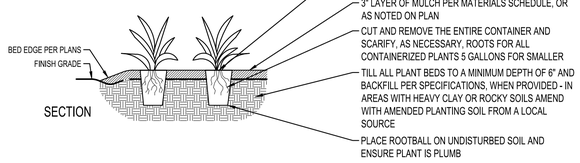
GENERAL PLANTING NOTES

1. COORDINATE LOCATION OF ALL UTILITIES (LINES, DUCTS, CONDUITS, SLEEVES, FOOTINGS, ETC.) WITH LOCATIONS OF PROPOSED LANDSCAPE ELEMENTS (FENCE, FOOTINGS, TREE ROOTBALLS, ETC.). CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
2. SAVE AND PROTECT ALL EXISTING TREES NOT NOTED TO BE REMOVED.
3. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS INJURIOUS TO PLANT GROWTH FROM PLANTING PITS AND BEDS PRIOR TO BACKFILLING WITH PLANTING MIX.
4. LAWN AREAS SHALL HAVE 8" MINIMUM DEPTH OF TOPSOIL. TOPSOIL SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. SHOULD MEET SUDAS STANDARD SECTION 2010.
5. REFER TO PLANTING DETAILS PLAN FOR AMENDED SOIL DEPTH IN PLANTING BEDS AND SURROUNDING TREES. REFER TO SPECIFICATIONS FOR MIX TYPE.
6. FIELD STAKE PLANTINGS ACCORDING TO PLAN. OWNER'S REPRESENTATIVE SHALL APPROVE ALL PLANT LOCATIONS PRIOR TO INSTALLATION. OWNER RESERVES THE RIGHT TO REVISE PLANTING LAYOUT AT TIME OF INSTALLATION.
7. ALL PLANT MATERIALS SHALL BE TRUE TO THEIR SCIENTIFIC NAME AND SIZE AS INDICATED IN THE PLANT SCHEDULE.
8. IF DISCREPANCIES EXIST BETWEEN THE NUMBER OF PLANTS DRAWN ON THE PLANTING PLAN AND THE NUMBER OF PLANTS IN THE SCHEDULE, THE PLANTING PLAN SHALL GOVERN.
9. OWNER RESERVES THE RIGHT TO REVISE QUANTITIES TO SUIT BUDGET LIMITATIONS. CONTRACTOR'S UNIT BID PRICES SHALL PREVAIL FOR ANY CHANGES IN QUANTITIES.
10. ALL SUBSTITUTIONS SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.
11. ALL PLANT MATERIALS MUST CONFORM TO AMERICAN STANDARDS FOR NURSERY STOCK (A.N.S.I.), LATEST EDITION PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, WASHINGTON D.C. LARGER SIZED PLANT MATERIALS OF THE SPECIES LISTED MAY BE USED IF THE STOCK CONFORMS TO A.N.S.I.
12. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN A LIVE AND HEALTHY GROWING CONDITION FOR ONE FULL GROWING SEASON (ONE YEAR) AFTER FINAL PROJECT ACCEPTANCE OR SHALL BE REPLACED FREE OF CHARGE WITH THE SAME GRADE AND SPECIES. ALL TREES SHALL HAVE A STRONG CENTRAL LEADER.
13. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE DUE TO OPERATIONS. ANY AREAS THAT ARE DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
14. PLANTING BED EDGING - USE 3/4" x 6" PROFESSIONAL GRADE STEEL EDGING IN ALL AREAS WHERE PLANTING BED MEETS LAWN AREAS OR WHERE INDICATED. USE 12" METAL SPIKES AS INSTRUCTED BY MANUFACTURER.
15. PROVIDE SHREDDED HARDWOOD MULCH, NATURAL COLOR, SURROUNDING ALL PROPOSED TREES TO A 3-INCH MINIMUM DEPTH AS SHOWN IN TREE PLANTING DETAIL. DO NOT USE AN UNDERLAYMENT SUCH AS PLASTIC SHEET OR LANDSCAPE FABRIC. IF LOCATED WITHIN A ROCK MULCHED PLANT BED, SUBSTITUTE THIS MULCH WITH THE MULCH CALLED FOR WITHIN THAT PLANT BED. APPLY PRE-EMERGENT TO ALL PLANTING BEDS PRIOR TO MULCHING.
16. PROVIDE ROCK MULCH, 2" RIVER ROCK, IN ALL PLANTING TO A 2" MINIMUM DEPTH. USE A PROFESSIONAL GRADE WOVEN WATER PERMEABLE LANDSCAPE FABRIC UNDERLAYMENT. DO NOT USE PLASTIC SHEETING. APPLY PRE-EMERGENT TO ALL PLANTING BEDS PRIOR TO MULCHING.
17. TURF AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED IF NOT INDICATED ON PLANS AS ANOTHER SURFACE. SOD SECTIONS SHALL BE NO SMALLER THAN 24" X 36" STAKED IN PLACE WITH BIODEGRADABLE SOD STAKES WHEN SLOPE IS STEEPER THAN 5:1 OR WHEN CONDITIONS REQUIRE. ALSO STAKE AT STORMWATER BASIN ON SLOPES AND BOTTOM TO PREVENT MOVEMENT.
18. IRRIGATION NOT REQUIRED
19. FOR PLANT, SHRUB, AND TREE LOCATIONS: CONTRACTOR IS PERMITTED TO USE DISCRETION AS NECESSARY TO AVOID DRIVEWAYS, UTILITIES, OR OTHER CONFLICTS. THE TOTAL NUMBER OF PLANTS, INCLUDING SHRUBS AND TREES SHALL MEET CITY CODE.
21. INDICATED QUANTITIES ARE ESTIMATES AND SHOULD BE CONFIRMED BY THE CONTRACTOR/BIDDER.
22. MINIMUM PLANT SIZES SHALL BE AS FOLLOW:
    - A. DECIDUOUS OVERSTORY TREES SHALL BE 8 FOOT MINIMUM HEIGHT
    - B. EVERGREEN OVERSTORY TREES SHALL BE 6 FOOT MINIMUM HEIGHT
    - C. DECIDUOUS UNDERSTORY TREES SHALL BE 6 FOOT MINIMUM HEIGHT
    - D. DECIDUOUS EVERGREEN SHRUBS SHALL BE 2 FOOT MINIMUM HEIGHT



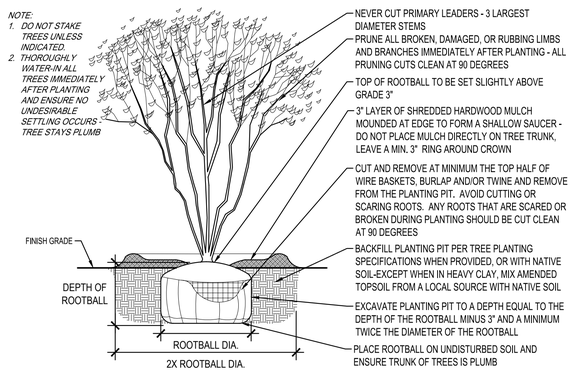
CONIFER / EVERGREEN TREE PLANTING DETAIL

SCALE: 1" = 1'-0"



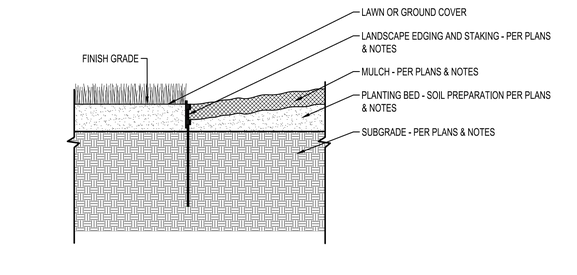
PERENNIAL PLANTING DETAIL

SCALE: 1" = 1'-0"



MULTI STEM PLANTING DETAIL

SCALE: 1" = 1'-0"



LANDSCAPE EDGING DETAIL

SCALE: 1" = 1'-0"

PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

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DESIGNED BY	--
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CLIENT PROJECT NO.	-

TITLE

PLANTING NOTES + DETAILS

SHEET

C5-18

PLANT SCHEDULE PARKING LOT

EVERGREEN TREE	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT	REMARKS
	BS	3	Black Hills Spruce Picea glauca densata	6` HT MIN	B & B	
	FS	12	Fat Albert Colorado Blue Spruce Picea pungens glauca `Fat Albert`	6` Ht	B & B	
	JO	10	Eastern Redcedar Juniperus virginiana `Grey Owl`	6` HT MIN	B & B	
	PS4	6	White Pine Pinus strobus	6` HT MIN	B & B	
	TE	10	Emerald Fountain Canadian Hemlock Tsuga canadensis `Emerald Fountain` TM	6` HT MIN	B & B	

OVERSTORY	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT	REMARKS
	AE	16	Accolade Elm Ulmus x `Morton`	8` HT MIN	B & B	
	AP	3	American Planetree Platanus occidentalis	8` HT MIN	B & B	
	CO	50	Shagbark Hickory Carya ovata	8` HT MIN	B & B	
	PH	88	Prairie Sentinel Hackberry Celtis occidentalis `Prairie Sentinel`	8` HT MIN	B & B	
	QI	16	Shingle Oak Quercus imbricaria	8` HT MIN	B & B	
	SO	32	Swamp White Oak Quercus bicolor	8` HT MIN	B & B	
	SR	25	Street Keeper Honeylocust Gleditsia triacanthos `Draves`	8` HT MIN	B & B	
	UO	28	Urban Pinnacle Oak Quercus macrocarpa `Urban Pinnacle`	8` HT MIN	B & B	

UNDERSTORY	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT	REMARKS
	BF	23	Dakota Pinnacle Asian White Birch Betula platyphylla `Fargo` TM	6` HT MIN	B & B	
	BH	17	Heritage River Birch Betula nigra `Heritage`	6` HT MIN	B & B	
	CE	4	European Hornbeam Carpinus betulus `Emerald Avenue` TM	6` HT MIN	B & B	
	QF	13	Pyramidal English Oak Quercus robur `Fastigiata`	6` HT MIN	B & B	
	SC	7	Spring Snow Crabapple Malus x `Spring Snow`	6` HT MIN	B & B	

SHRUBS	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT	REMARKS
	CA2	69	Artic Fire Dogwood Cornus sericea `Artic Fire`	24" HT MIN	CONT	
	JF	136	Sea Green Juniper Juniperus chinensis `Sea Green`	24" HT MIN	CONT	
	PL2	83	Dwarf Ninebark Physocarpus opulifolius `Little Devil` TM	18" HT MIN	CONT	
	PR	46	Ruby Spice Ninebark Physocarpus opulifolius `Ruby Spice`	18" HT MIN	CONT	
	RC	108	Rose Rosa x `Carefree Wonder`	18" HT MIN	CONT	
	SGL	89	Gro-Low Fragrant Sumac Rhus aromatica `Gro-Low`	18" HT MIN	CONT	
	SM2	21	Dwarf Korean Lilac Syringa meyeri `Palibin`	24" HT MIN	CONT	
	SM4	24	Miss Kim Lilac Syringa patula `Miss Kim`	18" HT MIN	CONT	
	ST2	58	Tinkerbelle Lilac Syringa patula `Tinkerbelle`	18" HT MIN	CONT	
	VA	21	Southern Arrowwood Viburnum dentatum `Autumn Jazz`	24" HT MIN	CONT	
	VC	34	Arrowwood Viburnum Viburnum dentatum `Compactum`	18" HT MIN	CONT	

PERENNIALS	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT	REMARKS
	BB	261	Blue Grama Bouteloua gracilis `Blonde Ambition`	12" HT MIN	CONT	
	CK	107	Feather Reed Grass Calamagrostis x acutiflora `Karl Foerster`	12" HT MIN	CONT	
	MM	6	Eulalia Grass Miscanthus sinensis `Morning Light`	12" HT MIN	B & B	
	PS3	32	Switch Grass Panicum virgatum `Shenandoah`	12" HT MIN	CONT	

GROUND COVERS	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT	REMARKS
	SEED 1	548,046 sf	SEED SUDAS TYPE 1 SEED MIX	SEED	SF	52.0 LBS = 0.20 ACRE PERMANENT LAWN MIXTURE
	SEED 2	5,186 sf	SEED SUDAS TYPE 2 SEED MIX	SEED	SF	48.75 LBS = 0.25 ACRES FOR SLOPES & DITCHES
	SEED WE	16,083 sf	SEED SUDAS WETLAND SEED MIX	SEED	SF	50.0 LBS = .20 ACRE SALT TOLERENCE MIX
	SOD	91,165	SOD BLUEGRASS SOD	SOD	SF	

REFERENCE NOTES SCHEDULE

CODE	DESCRIPTION	QTY
1	STEEL EDGING / COLOR : BLACK	187 lf
2	2" CLEAN RIVER GRAVEL	17,803 sf

*NOTE: CODE NUMBER & ARROW REFERENCE MATERIAL

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PLANT SCHEDULE NOTE

REFER TO DRAWING C5-17 FOR COMPLETE PLANTING SCHEDULE

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
01/22/19	REVISED PER CITY COMMENTS	AJR
02/19/19	REVISED PER CITY COMMENTS #2	AJR
03/05/19	REVISED PER CITY COMMENTS #3	AJR
03/26/19	REVISED PER CITY REVIEW #4	AJR
04/12/19	REVISED PER CITY REVIEW #5 & CCD #2-C	AJR
4/24/19	REVISED PER CITY REVIEW #6 & CCD #3-C	AT

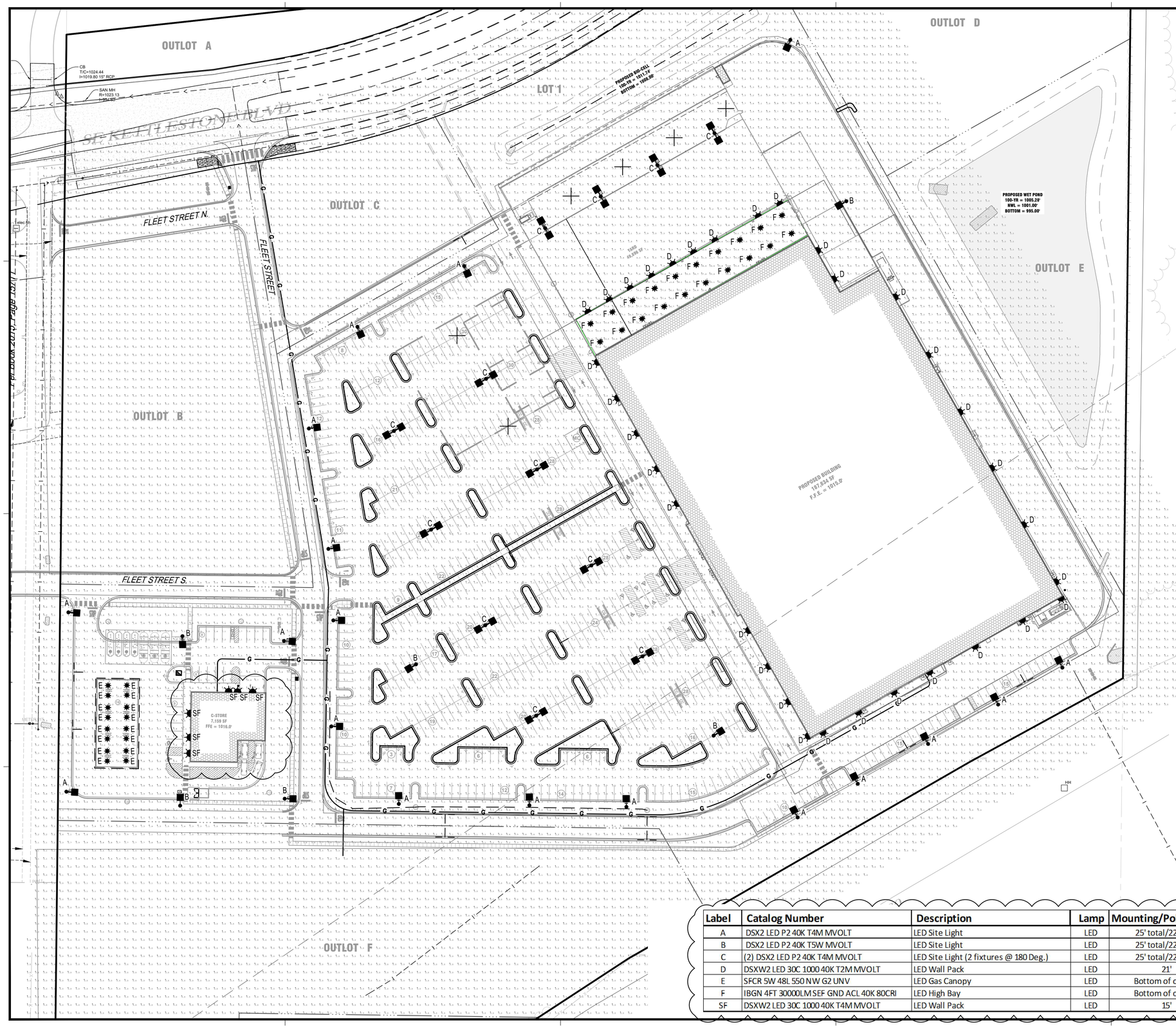
PROJECT NO.	18-22306
FILE NAME	22306 LANDSCAPE
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

PLANT + SITE MATERIALS SCHEDULES

SHEET

C5-19



NOTE: ALL PROPOSED BUILDING FACADE FIXTURES SHALL BE LOCATED AS SHOWN ON THE ARCHITECTURE LIGHTING PLAN.

Exterior Lighting Statistics

Description	Avg	Max	Min	Max/Min
Site Extents	0.09 fc	5 fc	0 fc	N/A
Gas Station	1.78 fc	9.2 fc	0 fc	N/A
Main Parking Lot	2.15 fc	9.1 fc	0.2 fc	45.5
Yard Shelter	22.74 fc	28.1 fc	4.5 fc	6.24
Walkway	3.47 fc	7.1 fc	0 fc	N/A
SE Lot	3.79 fc	6.1 fc	1 fc	6.1
Yard and Back Lot	2.7 fc	9.2 fc	0.2 fc	46
Gas Canopy	13.92 fc	17.7 fc	7.6 fc	2.33

Label	Catalog Number	Description	Lamp	Mounting/Pole Height	Lamp Lumens	LLF	Watts
A	DSX2 LED P2 40K T4M MVOLT	LED Site Light	LED	25' total/22' pole	23545	0.9	185
B	DSX2 LED P2 40K T5W MVOLT	LED Site Light	LED	25' total/22' pole	24974	0.9	185
C	(2) DSX2 LED P2 40K T4M MVOLT	LED Site Light (2 fixtures @ 180 Deg.)	LED	25' total/22' pole	(2) 23545	0.9	370
D	DSXW2 LED 30C 1000 40K T2M MVOLT	LED Wall Pack	LED	21'	10936	0.9	109
E	SFCR 5W 48L 550 NW G2 UNV	LED Gas Canopy	LED	Bottom of canopy	9660	0.9	82
F	IBGN 4FT 30000LM SEF GND ACL 40K 80CRI	LED High Bay	LED	Bottom of canopy	27344	0.9	205
SF	DSXW2 LED 30C 1000 40K T4M MVOLT	LED Wall Pack	LED	15'	10936	0.9	109

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/22/19	REVISED PER CITY COMMENTS	AJR
10/16/19	CCD #9-C	WMS

PROJECT NO.	18-22306
FILE NAME	22306 LIGHTING
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

SITE LIGHTING PLAN

SHEET

C6-10



D-Series Size 2
LED Area Luminaire

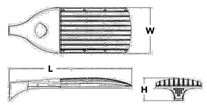
d-series

Catalog Number	
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.1 ft² (0.10 m²)
Length:	40" (101.6 cm)
Width:	15" (38.1 cm)
Height:	7-1/4" (18.4 cm)
Weight (max):	36 lbs (16.3 kg)



Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX2 LED P7 T3M MVOLT SPA DDBXD

DSX2 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** P1 P5 P2 P6 P3 P7 P4 P8 **Rotated optics**[1] P10 P13 P11 P14 P12	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2,3]	T1S Type I Short T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium T5VS Type V Very Short T5S Type V Short T5M Type V Medium T5W Type V Wide BLC Backlight control[2,3] LCCO Left corner cutoff[2,3] RCCO Right corner cutoff[2,3]	MVOLT[4,5] 120[4] 208[5,6] 240[5,6] 277[4] 347[4,6,7] 480[5,6,7]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor[8] RPUMBA Round pole universal mounting adaptor[8] **Shipped separately** KMAB DDBXD U Mast arm mounting bracket adaptor (specify finish)[9]

Control options

Shipped installed	
NLTAIR2	nLight AIR generation 2 enabled[10]
PER	NEMA twist-lock receptacle only (no controls)[11]
PERS	Five-wire receptacle only (no controls)[11,12]
PER7	Seven-wire receptacle only (no controls)[11,12]
DMG	0-10V dimming extend out back of housing for external control (no controls)
DS	Dual switching[13,14]
PIRH	Bi-level, motion/ambient sensor, 15'-30' mounting height, ambient sensor enable at 5fc[15]
PIRHN	Network, Bi-Level motion/ambient sensor[16]
PIRH1FC3V	Bi-level, motion sensor, 15'-30' mounting height, ambient sensor enabled at 1fc[15,17]
BL30	Bi-level switched dimming, 30%[13,14,17]
BL50	Bi-level switched dimming, 50%[13,14,17]
PNMTD3	Part night, dim till dawn[3,18]
PNMT5D3	Part night, dim 5 hrs[3,18]
PNMT6D3	Part night, dim 6 hrs[3,18]
PNMT7D3	Part night, dim 7 hrs[3,18]
FAO	Field Adjustable Output[19]

Other options

Shipped installed	
HS	House-side shield[20]
SF	Single fuse (120, 277, 347V)[3]
DF	Double fuse (208, 240, 480V)[3]
L90	Left rotated optics[11]
R90	Right rotated optics[11]
Shipped separately	
BS	Bird spikes[21]
EGS	External glare shield[22]

Finish (required)

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

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D-Series Size 2
LED Wall Luminaire

d-series

Catalog Number	
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

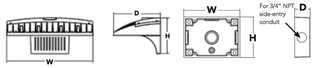
Specifications

Luminaire

Width:	18-1/2" (47.0 cm)	**Weight:**	21 lbs (9.5 kg)
Depth:	10" (25.4 cm)		
Height:	7-5/8" (19.4 cm)		

Back Box (BBW)

Width:	5-1/2" (14.0 cm)	**BBW Weight:**	1 lbs (0.5 kg)
Depth:	1-1/2" (3.8 cm)		
Height:	4" (10.2 cm)		



Capable Luminaire

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- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTXD

DSXW2 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW2 LED	20C 20 LEDs (two engines) 30C 30 LEDs (three engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2]	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium TFTM Forward Throw Medium ASTDF Asymmetric diffuse	MVOLT[3] 120[4] 208[4] 240[4] 277[4] 347[4,5] 480[4,5]	**Shipped included** (blank) Surface mounting bracket **Shipped separately**[6] BBW Surface-mounted back box (for conduit entry)	**Shipped installed** PE Photoelectric cell, button type[7] PER NEMA twist-lock receptacle only (control ordered separately)[7] PERS Five-wire receptacle only (control ordered separately)[8,9] PER7 Seven-wire receptacle only (control ordered separately)[8,9] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) PIR 180° motion/ambient light sensor, <15' mtg ht[10,11] PIRH 180° motion/ambient light sensor, 15-30' mtg ht[10,11] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[10,11,12] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[10,11,12]

Other Options

Shipped installed	
SF	Single fuse (120, 277, 347V)[3]
DF	Double fuse (208, 240, 480V)[3]
HS	House-side shield[4]
SPD	Separate surge protection[13]
Shipped separately[14]	
BSW	Bird-deterrent spikes
WG	Wire guard
VG	Vandal guard

Finish (required)

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DSSXD	Sandstone
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white
DSSTXD	Textured sandstone

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LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

LED High Bay

IBG



FEATURES & SPECIFICATIONS

INTENDED USE — Ideal one-for-one replacement of conventional HID and fluorescent high bay systems. Applications include warehousing, manufacturing, gymnasiums, and other large indoor spaces with mounting heights up to 60'. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic/Polycarbonate Compatibility table for suitable uses.**

CONSTRUCTION — Structural elements such as the channel and end caps are fabricated from steel for maximum rigidity. Wireguard attachment points provided. For high ambient (HA) option, lightweight aluminum heat sink designed to perform in ambient temperatures up to 55 °C for maximum naturally convective cooling.

OPTICS — General, narrow, wide and focus distributions available to meet both horizontal and vertical light level requirements. Injection molded refractors for repeatable photometry. Diffuse lens standard to provide glare control and LED protection. Optics are IP5X rated.

ELECTRICAL — L80 at 60,000 hours, L70>100,000 hours. Utilizes a 90°C case temperature driver for maximum life at high temperatures. 0.90 power factor and 3kA/6kV level of surge protection is standard. Optional 5kA/10kV surge protection available. Available as 120-277V or 347-480V input.

0-10V dimming standard for a dimming range of 100% to 10%.

WIRELESS NETWORKING — XPoint™ Wireless technology creates a mesh network to ensure communication between fixtures, sensors and wall stations facility-wide. This option provides superior lighting management capabilities including granular control, configuration and custom grouping for increased energy savings.

INSTALLATION — Suitable for suspension by chain, cable, surface-mounting bracket (THUN accessory), hook monopoint or single (pendant) monopoint. Surface mounting not recommended without optional surface mounting bracket. To maintain ambient listing, fixture should be mounted at a minimum plenum height of 18".

LISTINGS — CSA certified to US and Canadian safety standards. Damp location listed. Suitable for ambient temperatures from -40°F (-40°C) to 113°F (45°C) when suspended 18" from ceiling. High ambient option available (HA), suitable for ambient temperatures -40°F (-40°C) to131°F (55°C) when suspended 18" from ceiling. The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Acuity Brands is under license. Other trademarks and trade names are those of their respective owners.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number	DLC QPL Product ID	DLC Premium?
IBG 120OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 12L MVOLT**	**PAMMN2VK**	√
IBG 150OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 15L MVOLT**	**P3G6HADN**	√
IBG 180OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 18L MVOLT**	**P851GVEP**	√
IBG 240OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 24L MVOLT**	**PZBJQY5S**	√
IBG 120OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 12L HVOLT**	**PQSBU87B**	√
IBG 150OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 15L HVOLT**	**PSWUYJP8**	√
IBG 180OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 18L HVOLT**	**PWVPP59D**	√
IBG 240OLM SEF ARL GND HVOLT GZ10 40K 80CRI DWH	**IBG 24L HVOLT**	**P2UE1Z54**	√
IBG 120OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 12L MVOLT SK**	**P7TZZ42V**	√
IBG 150OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 15L MVOLT SK**	**PMXBGZJ5**	√
IBG 180OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 18L MVOLT SK**	**P85EZXU7**	√
IBG 240OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 24L MVOLT SK**	**PQ5CSK4B**	√
IBG 120OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 12L HVOLT SK**	**PFRXRQKT**	√
IBG 150OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 15L HVOLT SK**	**PV4N2BP5**	√
IBG 180OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 18L HVOLT SK**	**PA3OYAUT**	√
IBG 240OLM SEF ARL GND HVOLT GZ10 50K 80CRI DWH	**IBG 24L HVOLT SK**	**P5H2ZE5M**	√

Capable Luminaire

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- This luminaire is part of an A+ Certified solution for nLight® or XPoint™ Wireless control networks marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details





Project:	
Location:	
Cat.No:	
Type:	
Quantity:	
Notes:	

Philips Gardco SlenderForm SFC/SFCR garage and canopy luminaire features high output LEDs and a sleek, yet powerful, low profile design. The thin 3" profile combined with LED high output performance make SlenderForm the ideal choice for exterior ceiling mount and canopy applications. SlenderForm luminaires also provide LED solutions for parking garage applications requiring higher light levels, including entrances, and for garage areas with high ceilings.

Ordering guide

example: SFC-DD-5W-48L-700-NW-G2-UNV-MGY

Prefix	Controls	Distribution	LED Count	Drive Current	LED Color - Generation	Voltage	Finish	Options
SFC SlenderForm Ceiling luminaire **SFCR** SlenderForm Ceiling luminaire (recessed mounting)[2]	**--** Standard Luminaire **DD** 0-10V Dimming[2] **MR** Motion Response[2,3]	**3** Type III **5W** Type V, Wide Distribution **5R** Type V, Rectangular Distribution **CD** Concentrated Downlight	**48L** 48 LEDs	**250** 250mA **400** 400mA **550** 550mA **700** 700mA **900** 900mA[3]	**NW-G2** Neutral White 4000K, 70CRI Generation 2 **WW-G2** Warm White 3000K, 70CRI Generation 2 **CW-G2** Cool White 5700K, 70CRI Generation 2	**120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V **UNV** 120-277V	**MGY** Medium Gray	**F1** Single Fuse (120, 277, 347V)[3,5] **F2** Double Fuse (208, 240, 277V)[4,5] **F3** Double Fuse (208, 240, 480V)[4,5] Canadian double pull **DL** Diffusing Lens (reduces performance significantly) **PCB** Button Photocontrol[6,7] **BX** Bird Excluding Shroud[6,8] **JB** J-Box for Pendant Mounting[6,7] **GL** Glass Lens assembly

1. SFCR recessed mount NOT available with 900mA, MR, PCB, BX or JB.
2. Luminaire includes 0-10V input wires for dimming control by a dimming system supplied by others.
3. Only available in 120 through 277V.
4. Specify actual input voltage.
5. Not available with SFCR recessed mount units.
6. Shroud is for Pendant mount only. 12" (30.48cm) minimum pendant length required. Pendant by others. Option is installed in the field only.
7. For rigid and swivel pendant mount. Pendants by others.

Accessories
(order separately)

FSIR-100[9]
MR hand held programmer
For use with 'MR' motion response when field programming is required. If desired, only one is needed per job.

LED Wattage and Lumen Values Standard SFC & SFCR luminaires

Order Code	LED Qty	System Current (mA)	Color Temp (K)	Ave System Watts (W)	3 Lumen Output	3 Efficacy (lm/W)	5W Lumen Output	5W Efficacy (lm/W)	5R Lumen Output	5R Efficacy (lm/W)	CD Lumen Output	CD Efficacy (lm/W)
SFC or SFCR-48L-250-NW-G2	48	250	4000	38	4636	121	4804	125	4660	122	4656	122
SFC or SFCR-48L-400-NW-G2	48	400	4000	60	6932	116	7182	121	6968	117	6962	117
SFC or SFCR-48L-550-NW-G2	48	550	4000	82	9323	114	9660	119	9372	115	9364	115
SFC or SFCR-48L-700-NW-G2	48	700	4000	104	11609	112	12028	116	11670	112	11659	112
SFC or SFCR-48L-900-NW-G2	48	900	4000	133	14184	107	14696	111	14258	107	14245	107

Note: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips. Lumen output by optic type will vary slightly. See IES files when available. All technical data is subject to change.

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PROJECT

PROPOSED RETAIL DEVELOPMENT

HURD REALTY

WAUKEE IOWA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/22/19	REVISED PER CITY COMMENTS	AJR

PROJECT NO.	18-22306
FILE NAME	22306 LIGHTING
DRAWN BY	---
DESIGNED BY	--
REVIEWED BY	--
ORIGINAL ISSUE DATE	12/13/18
CLIENT PROJECT NO.	-

TITLE

LIGHTING CUT SHEETS

SHEET

C6-20