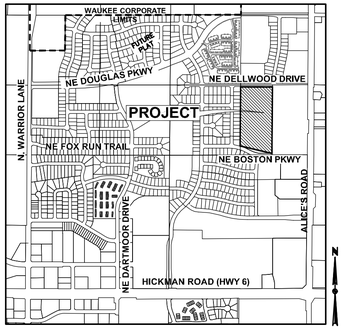
SITE PLAN FOR:

YARCO DEVELOPMENT

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



OWNER

LANDING AT SHADOW CREEK LLC
CONTACT: NICK HALFHILL
9550 HICKMAN ROAD SUITE 100
CLIVE, IA 50325

DEVELOPER

THE YARCO COMPANIES
CONTACT: MICHAEL GRUBE
7920 WARD PARKWAY
KANSAS CITY, MO 64114

ENGINEER

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: ERIN OLLENDIKE
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH. (515) 369-4400
FX. (515) 369-4410

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: MIKE BROONER
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH. (515) 369-4400
FX. (515) 369-4410

ARCHITECT

ROSEMANN & ASSOCIATES, P.C.
1526 GRAND BOULEVARD
KANSAS CITY, MO 64108
PH. (816) 472-1448

BENCHMARKS

1. STORM SEWER MANHOLE RIM LOCATED AT THE N.E. CORNER OF WARRIOR LANE AND FOX RUN TRAIL INTERSECTION. MANHOLE IS LOCATED 4' FROM THE EAST BACK OF CURB LINE OF WARRIOR LANE AND 46' NORTH OF FOX RUN TRAIL CENTERLINE. ELEVATION = 1014.23
2. SANITARY SEWER MANHOLE RIM LOCATED ON THE WEST SIDE OF NE DARTMOOR DRIVE, 121' +/- NORTH OF THE CENTERLINE OF NE BOWMAN DRIVE. MANHOLE IS LOCATED 9' FROM THE WEST BACK OF CURB LINE OF NE DARTMOOR DRIVE. ELEVATION = 1020.12

SUBMITTAL DATES

-SITE PLAN SUBMITTAL TO CITY #1:	09/14/2016
-SITE PLAN SUBMITTAL TO CITY #2:	10/14/2016
-SITE PLAN SUBMITTAL TO CITY #3:	11/01/2016

LEGAL DESCRIPTION

OUTLOT 'Z', LANDING AT SHADOW CREEK PLAT 2, AN OFFICIAL PLAT IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA.

ZONING

EXISTING:	R-3 – MULTI-FAMILY RESIDENTIAL DISTRICT
PROPOSED:	PLANNED DEVELOPMENT (PD) W/ UNDERLYING ZONING OF R-3 MULTI-FAMILY RESIDENTIAL AND R-4 ROW DWELLING AND TOWNHOME DISTRICT

DEVELOPMENT SUMMARY

SITE AREA: 721,899 SF (16.57 ACRES)

OPEN SPACE:
OPEN SPACE REQUIRED 144,380 SF (20%)
OPEN SPACE PROVIDED 342,178 SF (47%)

IMPERVIOUS AREA:
BUILDINGS:
BUILDING 1: 21,820 SF
BUILDING 2: 21.820 SF
BUILDING 3: 21,820 SF
TOWNHOMES: 81,862 SF
CLUBHOUSE & POOL: 7,000 SF
GARAGES: 15,840 SF
ROADWAY/PARKING AREAS: 193,929 SF
SIDEWALK: 15,630 SF
379,721 SF (8.72 ACRES)

PARKING CALCULATIONS:
MULTI-FAMILY (150 UNTIS)
REQUIRED: 1.5 SPACES / UNIT = 225 SPACES

TOWNHOMES (48 UNITS)
1 VISITOR SPACE / 5 TH UNITS = 10 SPACES

TOTAL REQUIRED: = 235 SPACES

TOTAL PROVIDED: = 243 SPACES

ACCESSIBLE SPACES REQUIRED
(201-300 TOTAL SPACES PROVIDED) = 7 SPACES

ACCESSIBLE SPACES PROVIDED = 8 SPACES

DATE OF SURVEY

DECEMBER 2, 2015

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = FALL 2016
ANTICIPATED FINISH DATE = FALL 2017

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN UPDATED SITE PLAN ILLUSTRATING ANY CHANGES MADE DURING CONSTRUCTION AND RECEIVE APPROVAL IN WRITING FROM THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT OF SAID CHANGES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES MADE WITHOUT WRITTEN APPROVAL.
2. THE RESULTS OF THE GEOTECHNICAL REPORT ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. THE SITE PLAN IS SUBJECT TO ANY CHANGES REQUIRED BY THE REPORT.
3. A COPY OF THE GEOTECHNICAL REPORT SHOULD BE PROVIDED TO THE ARCHITECT AND STRUCTURAL ENGINEER DESIGNING THE PROPOSED BUILDINGS TO ENSURE THAT FOOTINGS AND FOUNDATION WALLS ARE BEING DESIGNED.

INDEX OF SHEETS

NO.	DESCRIPTION
1	COVER SHEET
2-4	DETAILS AND REFERENCE NOTES
5	HYDRANT COVERAGE PLAN
6-8	DIMENSION PLAN
9-11	GRADING PLAN
12-14	UTILITY PLAN
15	EROSION AND SEDIMENT CONTROL PLAN
16-21	SANITARY AND WATERMAIN PLAN AND PROFILE
22-24	INTERSECTION DETAILS
25	LANDSCAPE PLAN

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR. SUITE G, GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 1606.300

GENERAL LEGEND

PROPOSED

PROJECT BOUNDARY
LOT LINE
SECTION LINE
CENTER LINE
RIGHT OF WAY — R/W —
PERMANENT EASEMENT — P/E —
TEMPORARY EASEMENT — T/E —
TYPE SW-501 STORM INTAKE
TYPE SW-503 STORM INTAKE
TYPE SW-505 STORM INTAKE
TYPE SW-506 STORM INTAKE
TYPE SW-513 STORM INTAKE
TYPE SW-401 STORM MANHOLE
TYPE SW-402 STORM MANHOLE
TYPE SW-301 SANITARY MANHOLE
STORM/SANITARY CLEANOUT
WATER VALVE
FIRE HYDRANT ASSEMBLY
SIGN
DETECTABLE WARNING PANEL
STORM SEWER STRUCTURE NO. ST-10
STORM SEWER PIPE NO. L-10
SANITARY SEWER STRUCTURE NO. S-10
SANITARY SEWER PIPE NO. P-10
SANITARY SEWER WITH SIZE — 8"S —
SANITARY SERVICE — S — S — S — S —
STORM SEWER
STORM SERVICE — ST — ST — ST —
WATERMAIN WITH SIZE — 8"W —
WATER SERVICE — W — W — W — W —
SAWCUT (FULL DEPTH)
SILT FENCE

EXISTING

SANITARY MANHOLE
WATER VALVE BOX
FIRE HYDRANT
WATER CURB STOP
WELL
STORM SEWER MANHOLE
STORM SEWER SINGLE INTAKE
STORM SEWER DOUBLE INTAKE
FLARED END SECTION
ROOF DRAIN/ DOWNSPOUT
DECIDUOUS TREE
CONIFEROUS TREE
DECIDUOUS SHRUB
CONIFEROUS SHRUB
ELECTRIC POWER POLE
GUY ANCHOR
STREET LIGHT
POWER POLE W/ TRANSFORMER
UTILITY POLE W/ LIGHT
ELECTRIC BOX
ELECTRIC TRANSFORMER
ELECTRIC MANHOLE OR VAULT
TRAFFIC SIGN
TELEPHONE JUNCTION BOX
TELEPHONE MANHOLE/VAULT
TELEPHONE POLE
GAS VALVE BOX
CABLE TV JUNCTION BOX
CABLE TV MANHOLE/VAULT
MAIL BOX
BENCHMARK
SOIL BORING
UNDERGROUND TV CABLE — TV — TV —
GAS MAIN — G — G —
FIBER OPTIC — FO — FO —
UNDERGROUND TELEPHONE — T — T —
OVERHEAD ELECTRIC — OE — OE —
UNDERGROUND ELECTRIC — E — E —
FIELD TILE — TILE —
SANITARY SEWER W/ SIZE — 8"S —
STORM SEWER W/ SIZE — 15" RCP —
WATER MAIN W/ SIZE — 8"W —

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2016 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IN THE EVENT OF CONTRASTING REQUIREMENTS.

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IN THE EVENT OF CONTRASTING REQUIREMENTS.

LICENSED PROFESSIONAL ENGINEER ERIN K. OLLENDIKE 16926 IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY
NOT FOR CONSTRUCTION

ERIN K. OLLENDIKE, P.E. DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2017
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1-24

YARCO DEVELOPMENT

FILE: P:\2016\1606300\DWG\1606300-SITE.DWG
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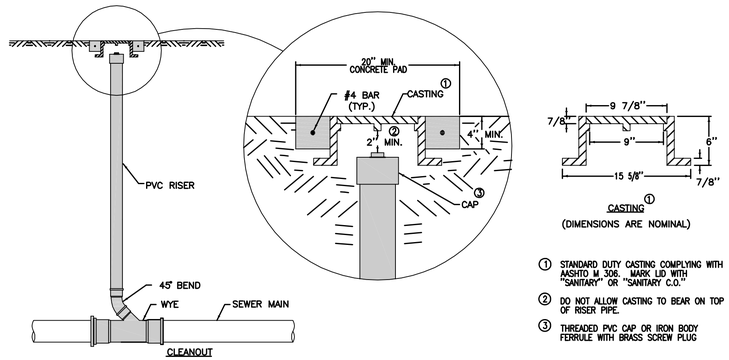


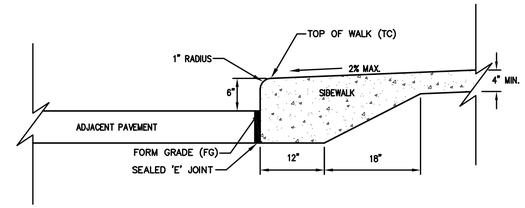
① STANDARD DUTY CASTING COMPLYING WITH AASHTO M 306. MARK LID WITH "SANITARY" OR "SANITARY C.O."

② DO NOT ALLOW CASTING TO BEAR ON TOP OF RISER PIPE.

③ THREADED PVC CAP OR IRON BODY FERRULE WITH BRASS SCREW PLUG

SW-203 SANITARY CLEANOUT

NOT TO SCALE



CLASS 'A' 6" CURB AND SIDEWALK

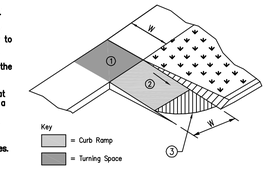
NOT TO SCALE

① Perpendicular Curb Ramp: Target running sloped of 6.25% with a maximum running slope of the 8.3%.

② Turning Space: Target slope of 1.5% with a maximum slope perpendicular to the travel directions of 2.0%. At mid-block crossings, cross slope of landing may exceed 2.0% to match the roadway grade. Min. 5'x5'.

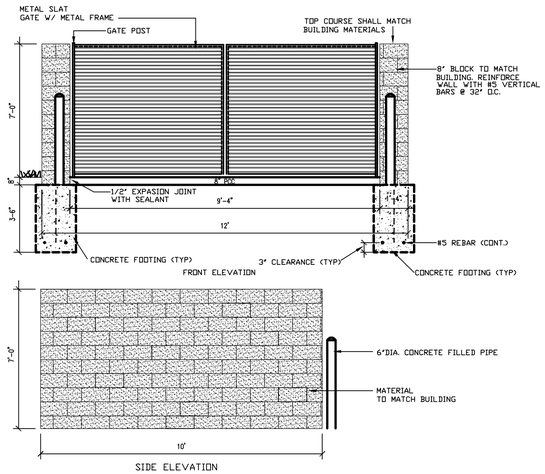
③ Provide an area of special shaping at the bottom of the ramp to provide a smooth transition to the gutterline. 2% maximum slope in any direction.

④ The minimum pavement depth for ramps and landings shall be 6-inches.



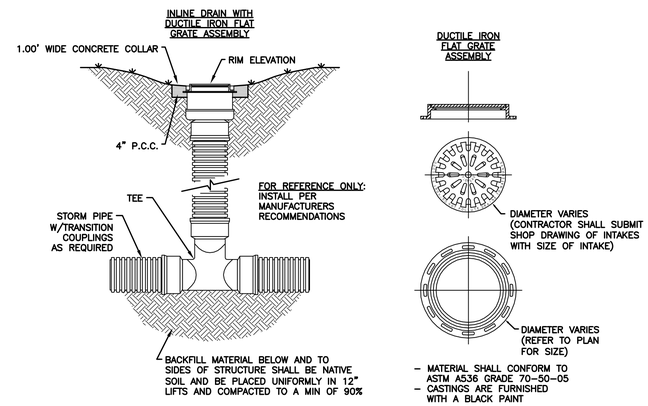
PERPENDICULAR CURB RAMP @ CLASS 'A' INTEGRAL CURB

NOT TO SCALE



DUMPSTER ENCLOSURE DETAIL

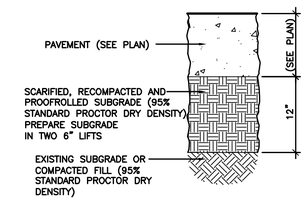
NOT TO SCALE



- MATERIAL SHALL CONFORM TO ASTM A536 GRADE 70-50-05
- CASTINGS ARE FURNISHED WITH A BLACK PAINT

NYLOPLAST INLINE DRAIN

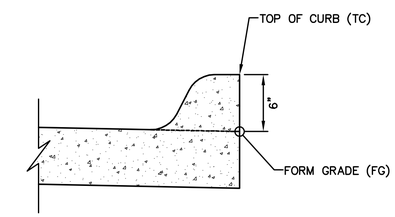
NOT TO SCALE



NOTE:
1. SUBGRADE PREPARATION SHALL EXTEND 24" BEYOND EDGE OF PAVING OR BACK OF CURB. EXCEPT WHEN ABUTTING EXISTING PAVEMENT.

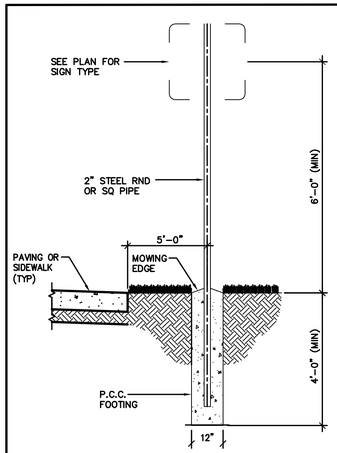
12" SUBGRADE PREPARATION

NOT TO SCALE



INTEGRAL 6" STANDARD CURB SPOT ELEVATION REFERENCE DETAIL

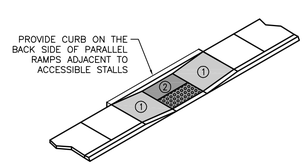
NOT TO SCALE



NOTE:
THE CONTRACTOR WILL FURNISH ALL SIGN PANELS AND SHALL INSTALL SIGNS AND FURNISH ALL OTHER MATERIALS, INCLUDING, BUT NOT LIMITED TO, POSTS, FASTENERS, AND FOOTINGS.

TYPICAL SIGN POST

NOT TO SCALE



① Parallel Curb Ramp: Target cross slope of 1.5% with a maximum cross slope of 2.0%. The length of the parallel ramp is not to exceed 15 feet, regardless of resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

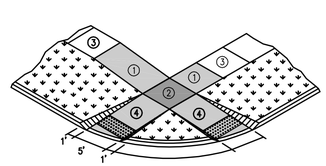
② Turning Space: Target slope of 1.5% with a maximum slope perpendicular to the travel directions of 2.0%. Ath mid-block crossings, cross slope of landing may exceed 2.0% to match the roadway grade. Minimum 5 feet by 5 feet.

③ Target cross-slope of 1.5% with a maximum cross-slope of 2.0%.

④ Perpendicular curb ramp: Target running slope of 6.25% with maximum running slope of 8.3%

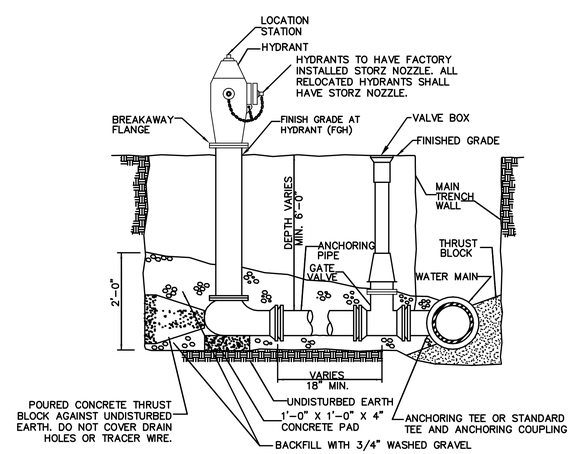
⑤ The minimum pavement depth for ramps and landings is 6-inches.

Key
= Curb Ramp
= Turning Space
= Detectable Warning



CURB RAMPS OUTSIDE OF INTERSECTION RADIUS

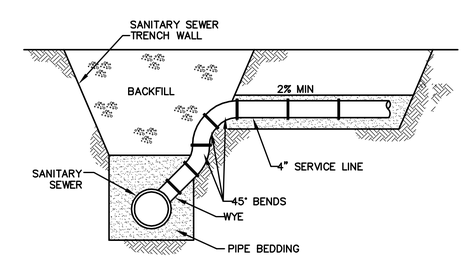
NOT TO SCALE



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.

HYDRANT ASSEMBLY DETAIL

NOT TO SCALE



NOTES:
1. USE FOR SERVICE CONNECTION WHEN SANITARY SEWER DEPTH EXCEEDS 12.0'
2. STOP ALL GRANULAR BACKFILL AND BEDDING 10' FROM THE END OF THE SERVICE.

SANITARY SEWER SERVICE RISER

NOT TO SCALE

REVISIONS	DATE
3RD SUBMITTAL	11/01/16
2ND SUBMITTAL	10/14/16
1ST SUBMITTAL	09/14/16

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: EAH
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

YARCO DEVELOPMENT
DETAILS

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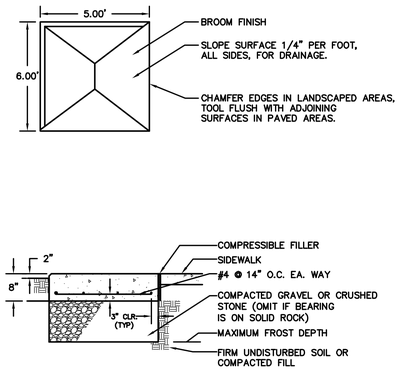
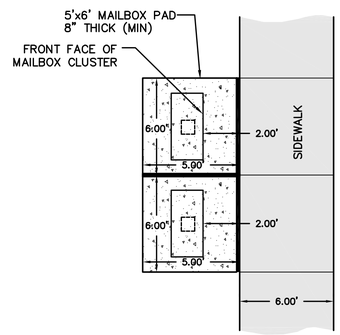
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:



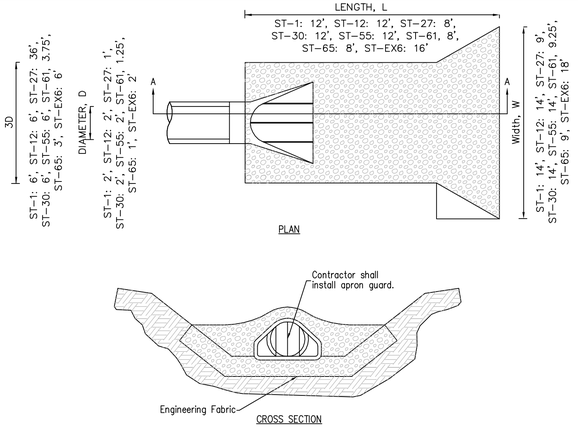
GENERAL NOTES
1. CONCRETE: C4 MIX.
2. REINFORCING STEEL: ASTM A615, GRADE 60.
3. THIS BASE DETAIL CAN BE USED FOR NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) CLUSTER BOXES AND PARCEL LOCKERS WITH 4"X10" BOLT PATTERN.
4. REQUIRED EXPANSION BOLT CAPACITY, BASED ON CALCULATED DESIGN LOAD= 3100 LBS TENSION, 2000 LBS SHEAR.
5. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.

MAILBOX PAD DETAIL
NOT TO SCALE

INSTALLATION NOTE:
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
2. CLUSTER MAILBOX TO BE LOCATED BETWEEN THE BUILDING AND SIDEWALK.
3. DETERMINE SIDEWALK SIDE OF MAILBOX PAD ELEVATION ASSUMING CONSTANT 4% SLOPE FROM BACK OF CURB TO SIDEWALK SIDE OF MAILBOX PAD. RESULTING SLOPE FROM BACK OF CURB TO STREET SIDE OF MAILBOX PAD WILL BE GREATER THAN 4%. FOR EXAMPLE, FOR A 29' WIDE PAVEMENT WITH A 60' WIDE R.O.W. AND A 2% MAILBOX PAD CROSS SLOPE, THE RESULTING SLOPE FROM THE BACK OF CURB TO THE STREET SIDE OF MAILBOX PAD IS 6.2%.

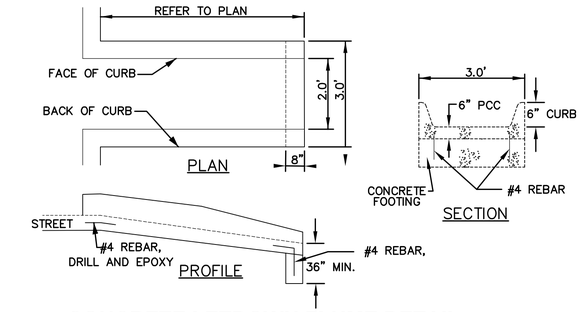


MAILBOX PAD DETAIL
NOT TO SCALE



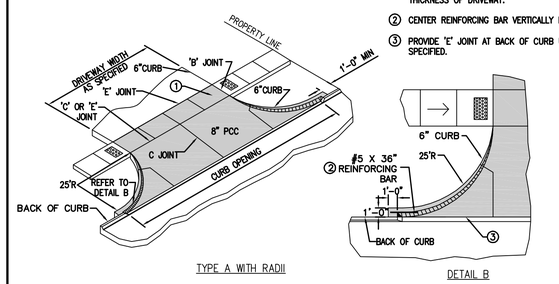
NOTE:
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SUDAS.
2. INSTALL A 3' CLAY WATERSTOP AT ALL STORM SEWER OUTLETS.

ROCK APRON FOR PIPE OUTLET
NOT TO SCALE

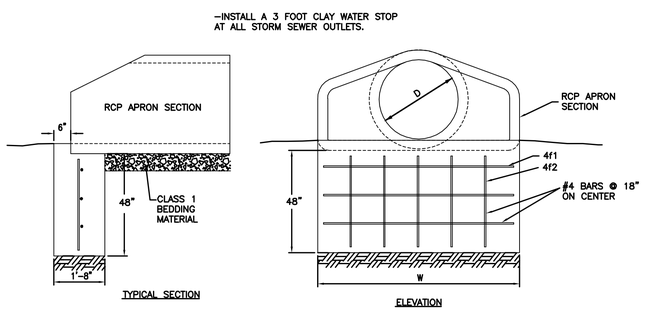


CONCRETE LETDOWN FLUME DETAIL
NOT TO SCALE

① SIDEWALK THICKNESS THROUGH DRIVEWAY TO MATCH THICKNESS OF DRIVEWAY.
② CENTER REINFORCING BAR VERTICALLY IN THE PAVEMENT.
③ PROVIDE 'E' JOINT AT BACK OF CURB UNLESS 'B' JOINT IS SPECIFIED.



PRIVATE DRIVE CONNECTION DETAIL

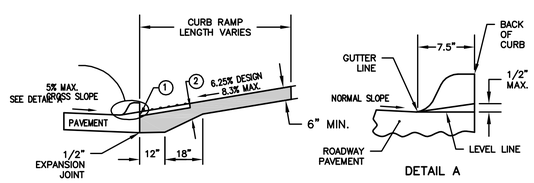


REINFORCING BAR LIST

D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3
		4f2	4	3'-8"	2
15"	2'-10"	4f1	4	2'-6"2	3
		4f2	4	3'-8"	2
18"	3'-5"	4f1	4	3'-1"	3
		4f2	4	3'-8"	3
24"	4'-6"	4f1	4	4'-2"	3
		4f2	4	3'-8"	3
30"	5'-7"	4f1	4	5'-3"	3
		4f2	4	3'-8"	4
36"	6'-8"	4f1	4	6'-4"	3
		4f2	4	3'-8"	5
42"	7'-3"	4f1	4	6'-11"	3
		4f2	4	3'-8"	5

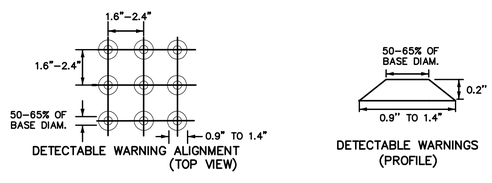
D	W	Mark	Size	Length	Count
48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	6
54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	6
60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	7
78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	7
84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	8

RCP APRON FOOTING DETAIL
NOT TO SCALE



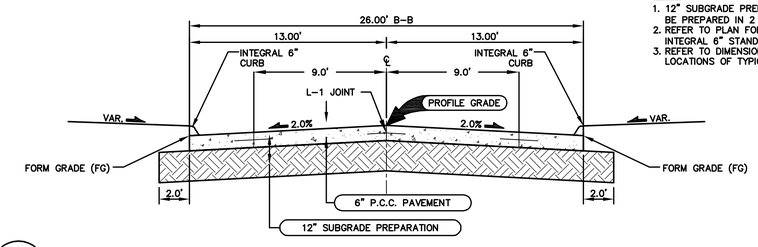
① INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.

② PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.



DETECTABLE WARNING STRIP DETAIL
NOT TO SCALE

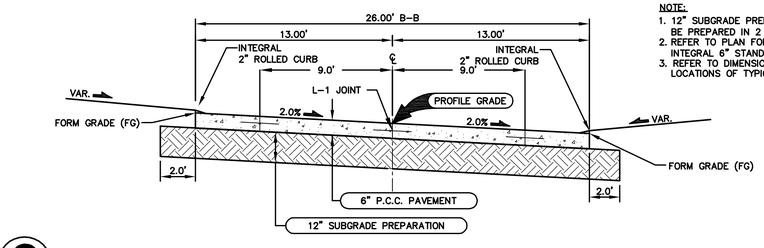
NOTE:
1. 12" SUBGRADE PREPARATION TO BE PREPARED IN 2 – 6" LIFTS.
2. REFER TO PLAN FOR LOCATIONS OF INTEGRAL 6" STANDARD CURB.
3. REFER TO DIMENSION PLAN FOR LOCATIONS OF TYPICAL SECTION.



1

TYPICAL SECTION - 26' P.C.C. ROADWAY
NOT TO SCALE

NOTE:
1. 12" SUBGRADE PREPARATION TO BE PREPARED IN 2 – 6" LIFTS.
2. REFER TO PLAN FOR LOCATIONS OF INTEGRAL 6" STANDARD CURB.
3. REFER TO DIMENSION PLAN FOR LOCATIONS OF TYPICAL SECTION.



2

TYPICAL SECTION - 26' P.C.C. ROADWAY W/ 2" ROLLED CURB
NOT TO SCALE

REVISIONS	DATE
3RD SUBMITTTAL	11/01/16
2ND SUBMITTTAL	10/14/16
1ST SUBMITTAL	09/14/16

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: EAH
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

YARCO DEVELOPMENT
DETAILS

FILE: H:\2016\1606300\DWG\1606300-SITE.DWG
LAST MODIFIED: WED, OCT 12, 2016 12:02 PM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2016 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.

2. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

3. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.

4. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING HIS EQUIPMENT ON THE PAVEMENT OR SIDEWALK.

5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.

6. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

7. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:

   A. CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT
   B. APPROPRIATE UTILITY COMPANIES
   C. OWNER
   D. CIVIL DESIGN ADVANTAGE

   * 48 HOUR NOTICE SHALL BE GIVEN TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO WEEKEND AND HOLIDAY WORK.

8. PRIOR TO CONSTRUCTION, THE PROJECT MANAGER SHALL CONTACT THE WAUKEE DEVELOPMENT SERVICES DEPARTMENT AND SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST ONE WEEK PRIOR TO THE ANTICIPATED START OF CONSTRUCTION.

9. SPECIAL CARE SHALL BE TAKEN WHEN FORMING AT INTERSECTIONS SO THE PROFILES SHOWN ON THE PLANS AND THE ELEVATIONS SHOWN ON THE INTERSECTION DETAILS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.

10. TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAVING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.

11. THE CONTRACTOR MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR THE CITY, TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY. THIS WILL BE INCIDENTAL TO THE BID ITEM TRAFFIC CONTROL. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.

12. PLAN AND PROFILE SHEETS INCLUDED IN THE PROJECT ARE FOR THE PURPOSE OF ALIGNMENT, LOCATION AND SPECIFIC DIRECTIONS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. IRRELEVANT DATA ON THESE SHEETS IS NOT TO BE CONSIDERED A PART OF THIS CONTRACT.

13. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.

14. THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.

15. ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.

16. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.

17. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)

18. ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.

19. SIDEWALKS, ACCESSIBLE CURB RAMPS AND SIDEWALK RAMPS INCLUDING RAISED TRUNCATED DOME AND DETECTABLE WARNINGS AND WARNING PANELS SHALL BE DESIGNED AND INSTALLED TO THE LATEST P.R.O.W.A.G. AND A.D.A. REQUIREMENTS.

20. PLACE 3/4" EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2" EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C PAVEMENT. THE PCC RAMP JOINT LOCATED AT THE BACK OF CURB AND ALL EXPANSION JOINTS SHALL BE SEALED.

21. REMOVE DEBRIS AND MUD SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.

22. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.

23. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.

24. IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.

25. ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILTS.

26. ALL CONSTRUCTION STAKING TO BE COMPLETED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR. ALL CURB DROPS AND SIDEWALK/SHARED USE PATH SHALL ALSO BE STAKED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR

27. THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.

28. A GEOTECHNICAL ENGINEER SHALL BE ONSITE DURING CONSTRUCTION AND FOR PROOF ROLL TO INSPECT SOILS.

29. THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.

30. ALL TESTING SHALL BE COMPLETED ACCORDING TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE WAUKEE ENGINEERING DEPARTMENT SHALL BE PRESENT TO WITNESS ALL TESTING.

31. AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.

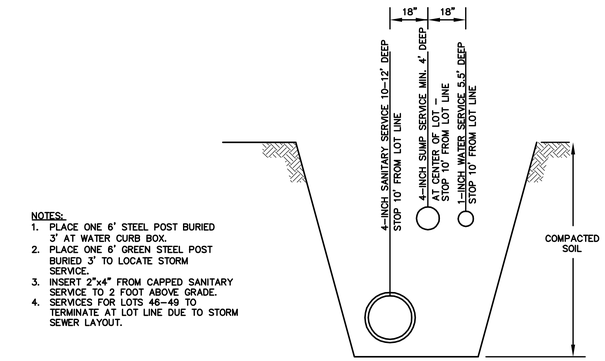
32. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING, TELEVISING AND VACUUM TESTING ALL STORM AND SANITARY SEWERS. ALL CLEANING, TELEVISING AND VACUUM TESTING SHALL BE APPROVED BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO PAVING. A COPY OF THE VIDEOS SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.

33. ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE STORZ FITTINGS.

34. ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.

35. ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.

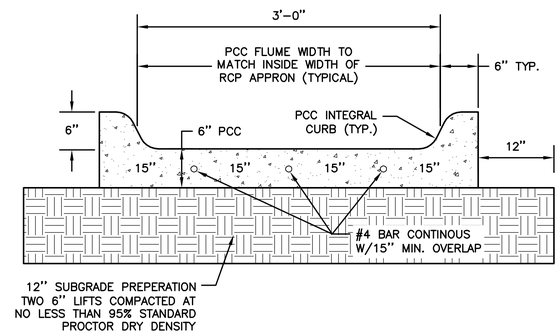
36. ANY EXISTING ESTABLISHED YARDS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE SODDED AND WATERED UNTIL ESTABLISHED.



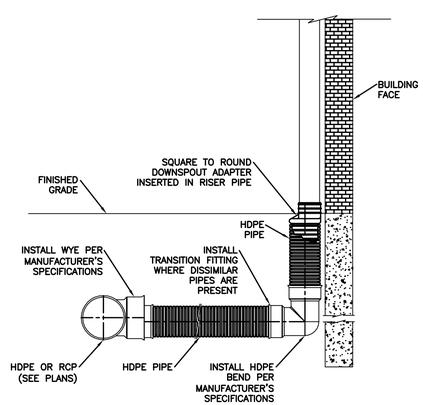
NOTES:
1. PLACE ONE 6' STEEL POST BURIED 3' AT WATER CURB BOX.
2. PLACE ONE 6' GREEN STEEL POST BURIED 3' TO LOCATE STORM SERVICE.
3. INSERT 2"x4" FROM CAPPED SANITARY SERVICE TO 2 FOOT ABOVE GRADE.
4. SERVICES FOR LOTS 46-49 TO TERMINATE AT LOT LINE DUE TO STORM SEWER LAYOUT.

TOWNHOMES SERVICE LOCATION DETAIL

NOT TO SCALE

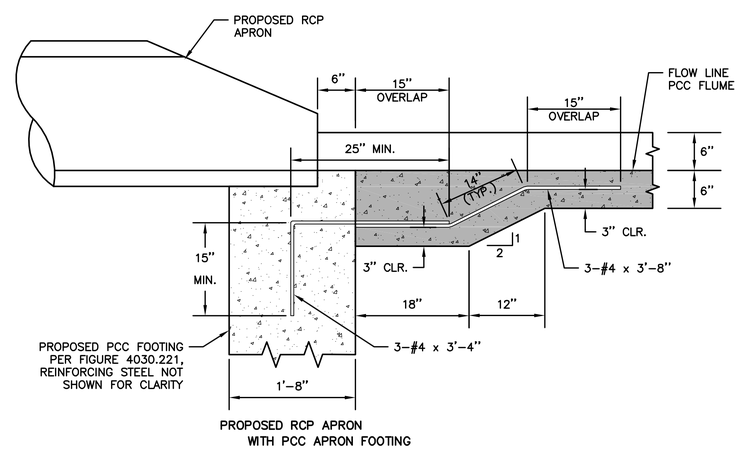


TYPICAL CROSS SECTION



ROOF DRAIN CONNECTION WITH WYE

NOT TO SCALE



PROPOSED RCP APRON WITH PCC APRON FOOTING

PCC FLUME DETAIL

NOT TO SCALE

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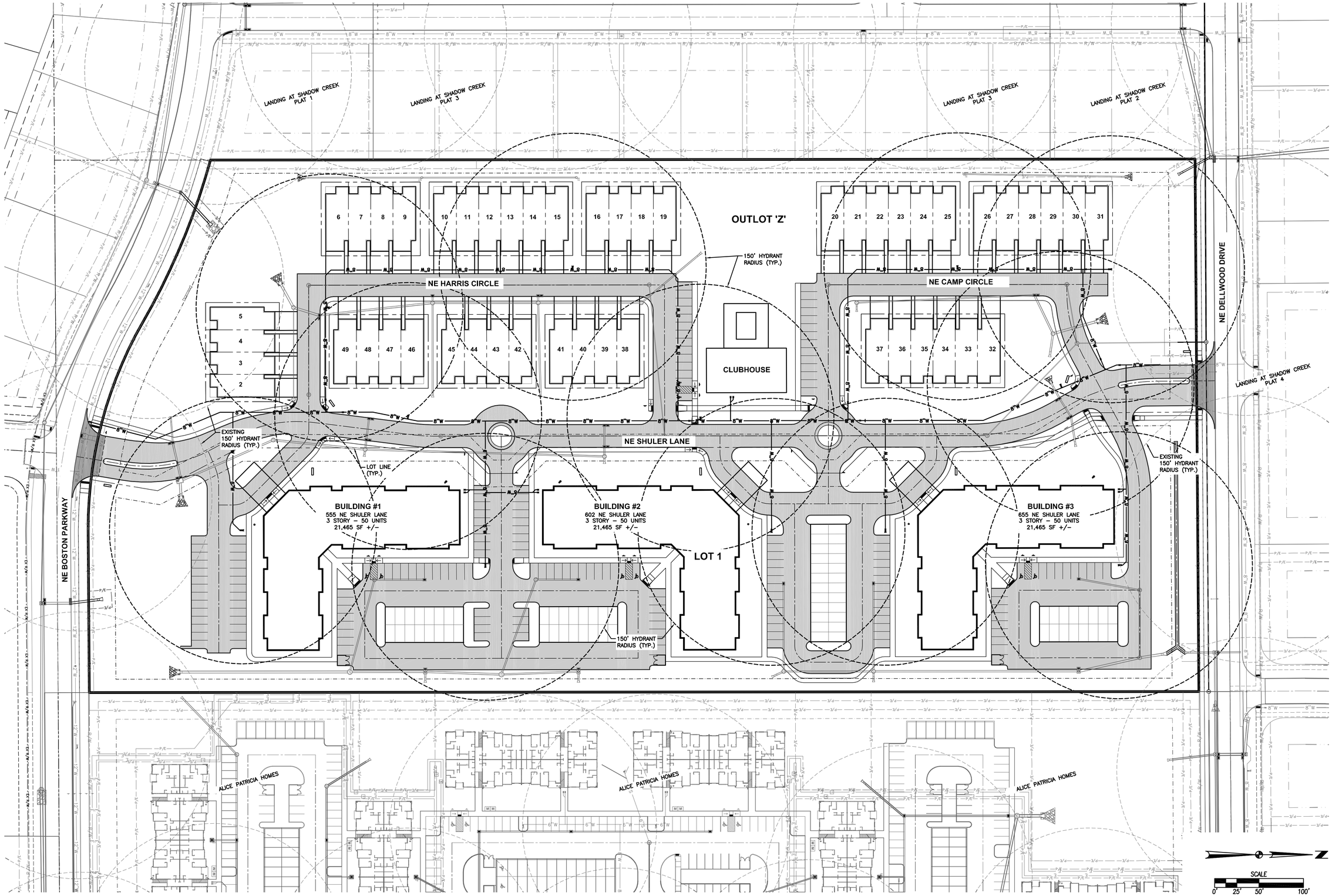
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: EAH
CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
DETAILS AND REFERENCE NOTES
WAUKEE, IOWA

FILE: H:\2016\1606300\DWG\1606300-SITE.DWG
PLOTTED BY: JARED MURRAY PLOTTED: 11/1/2016 12:02 PM COMMENT:
TECH: ENG:



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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: EKO | EI: EAH

CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
HYDRANT COVERAGE PLAN

WAUKEE, IOWA

5/25

1606.300

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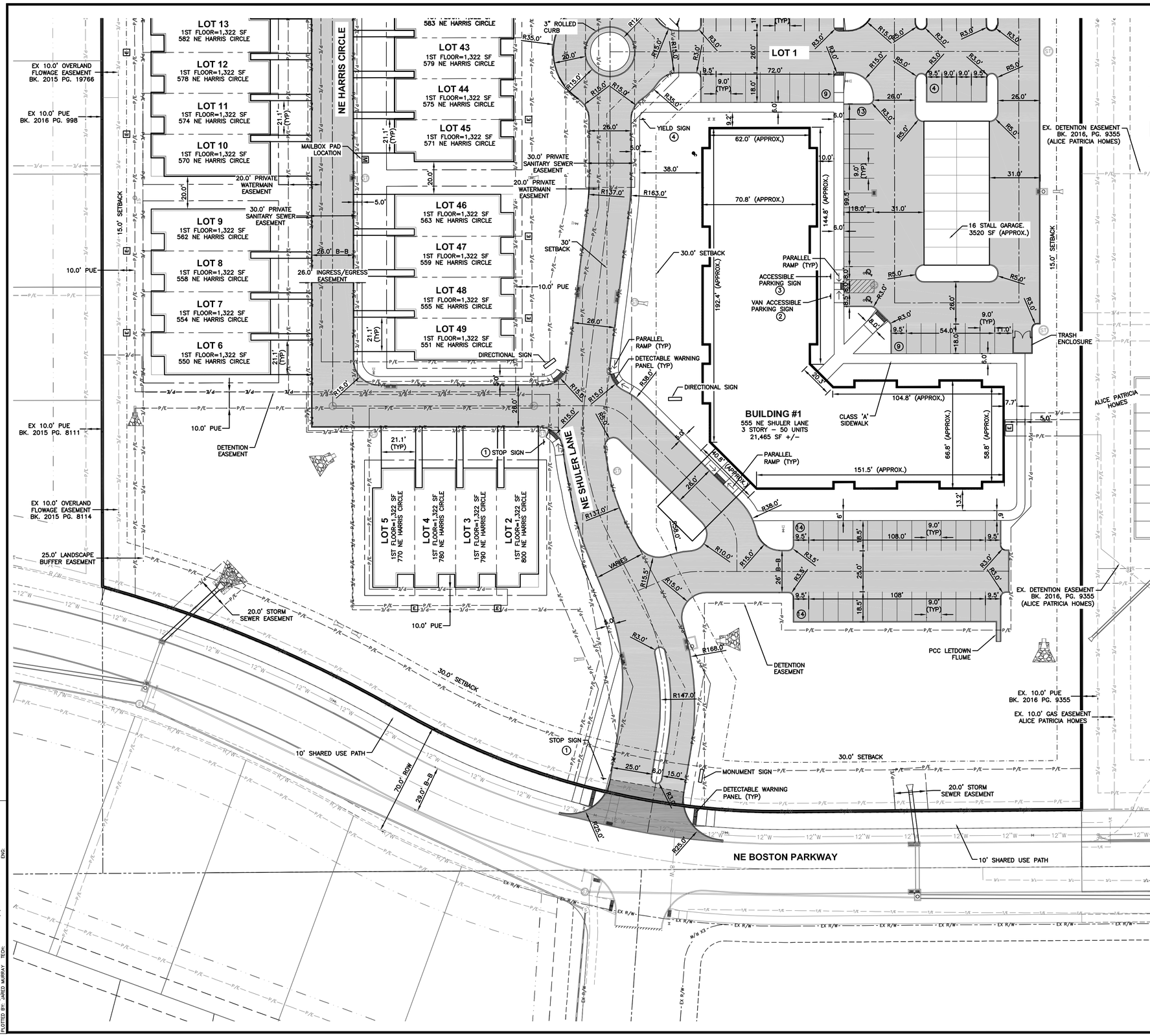


GENERAL NOTES

1. ALL CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. 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.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC UTILITIES CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. SAWCUT AND REMOVE 6 INCHES OF PAVEMENT ON ALICE'S ROAD TO FULL DEPTH TO CREATE A CLEAN EDGE.
11. REMOVE ALL DEBRIS AND MUD SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
12. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
13. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
14. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
15. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK. ANY PAVEMENT REPLACEMENT SHALL COMPLY WITH THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
16. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
17. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
18. ALL SCOUR STOP SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR ACCORDING TO SCOUR STOP PRODUCT SPECIFICATIONS.
19. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACT BID.
20. MONUMENT SIGNS ARE TO BE REVIEWED AND APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT.
21. ALL STAKING IS TO BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER OR SURVEYOR.
22. IT IS THE CONTRACTORS RESPONSIBILITY TO SCHEDULE A PRE–CONSTRUCTION MEETING WITH THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT AT LEAST ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.
23. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT 72 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.
24. AN AS–BUILT SITE PLAN ILLUSTRATING THE LOCATION AND DEPTHS OF SITE UTILITIES AND GRADES FOR DRAINAGE SWALES, DETENTION FACILITIES AND FFE'S SHALL BE PROVIDED IN PDF FORM AND HARD COPY UPON COMPLETION OF EACH PHASE OF DEVELOPMENT TO THE CITY WAUKEE'S DEVELOPMENT SERVICES DEPARTMENT.
25. ALL TOWNHOMES WILL HAVE SINGLE SERVICE TRASH PICKUP.
26. MAILBOXES FOR BUILDINGS 1–3 WILL BE INSIDE THE BUILDINGS.

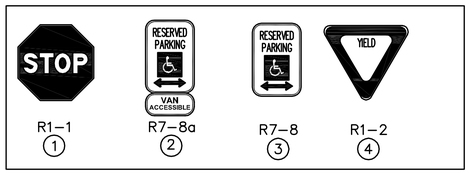
TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ACCESS ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT–OF–WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A–4.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE WORK PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

PAVEMENT THICKNESS

1. SIDEWALKS	4" P.C.C. (C–4 MIX)
2. ROADWAYS AND PARKING	6" P.C.C. (C–4 MIX)
3. DRIVE APPROACH WITHIN NE BOSTON PARKWAY AND NE DELLWOOD DRIVE ROW	7" P.C.C. (C–4 MIX)
4. DUMPSTER ENCLOSURES	8" P.C.C. (C–4 MIX)

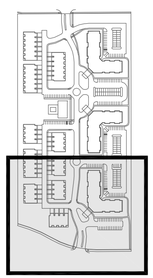
SIGN LEGEND



* * * N O T E * * *
THE APARTMENT UNITS THAT ARE SHOWN ARE FOR REFERENCE PURPOSES ONLY. FINAL UNIT TYPE IS SUBJECT TO CHANGE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

T — ELECTRICAL TRANSFORM LOCATION

M — MAILBOX PAD LOCATION



SHEET INDEX

SCALE 0' 15' 30' 60'

REVISIONS	DATE
3RD SUBMITTAL	11/01/16
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3405 S.E. CROSSROADS DRIVE, SUITE G
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CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
DIMENSION PLAN
WAUKEE, IOWA

1606.300

FILE: H:\2016\1606300\DWG\1606300-DIMENSION PLAN.DWG
PLOTTED BY: JARED MURRAY LAST EDITED: 11/7/2016 12:02 PM
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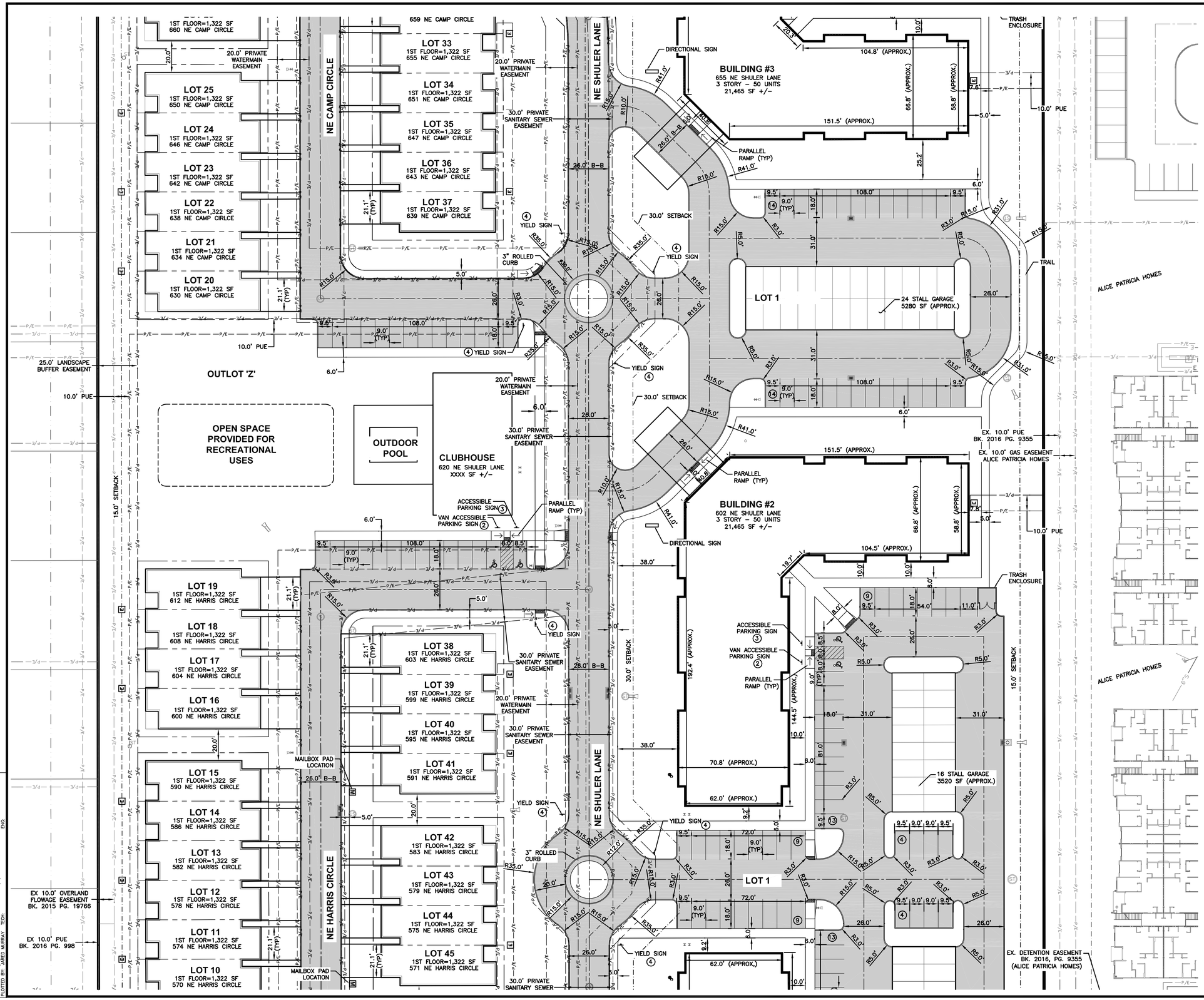
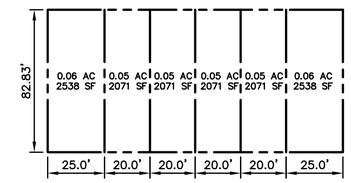
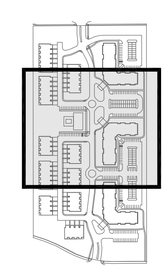


TYPICAL TOWNHOME LOTS

NOT TO SCALE





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YARCO DEVELOPMENT

DIMENSION PLAN

WAUKEE, IOWA

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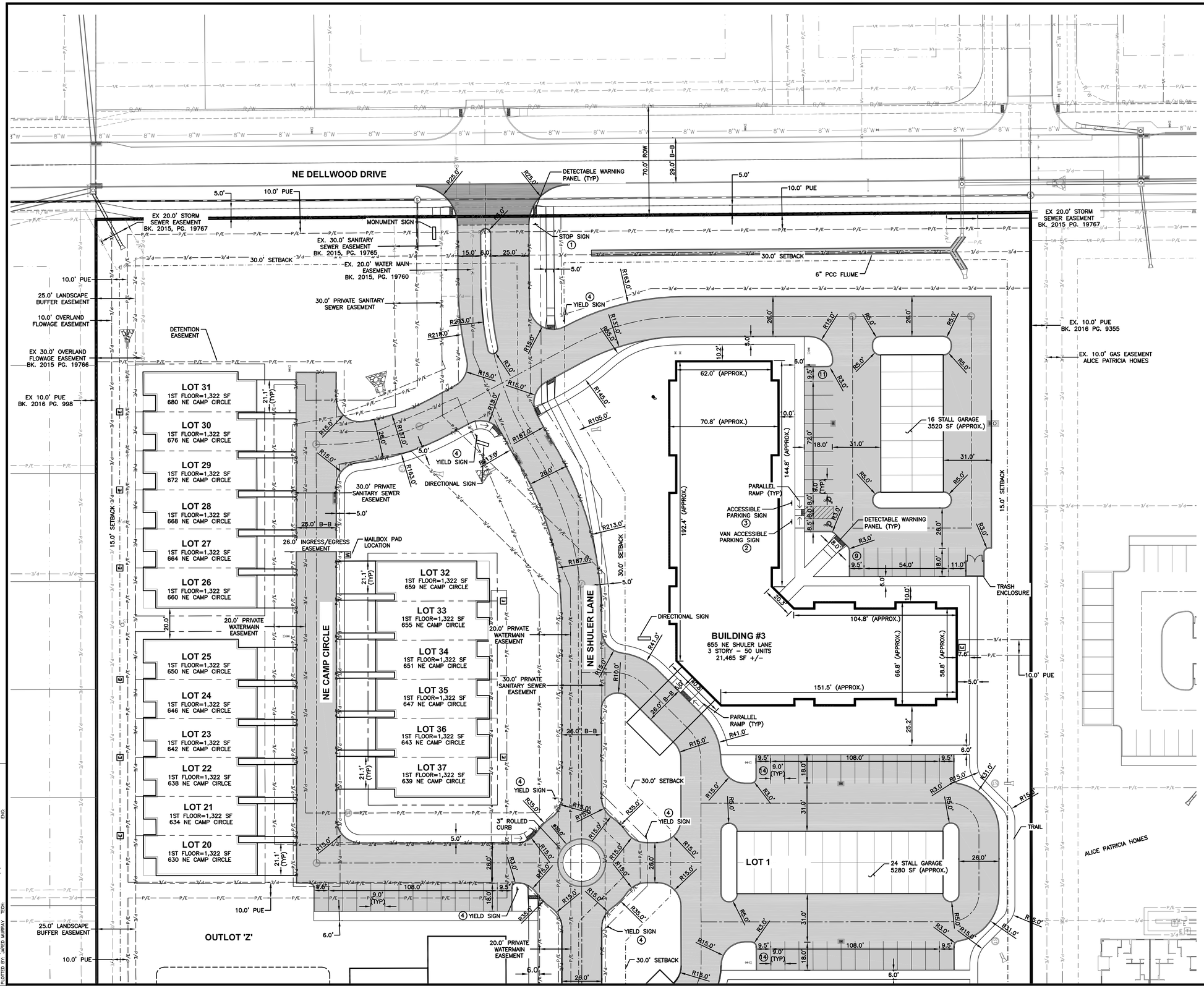

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WAUKEE, IOWA

YARCO DEVELOPMENT
DIMENSION PLAN

8/25

1606.300

FILE: H:\2016\1606300\DWG\1606300-DIMENSION PLAN.DWG
PLOT DATE: 11/1/2016 PLOT SCALE: 1:1 PLOTTED BY: JARED MURRAY
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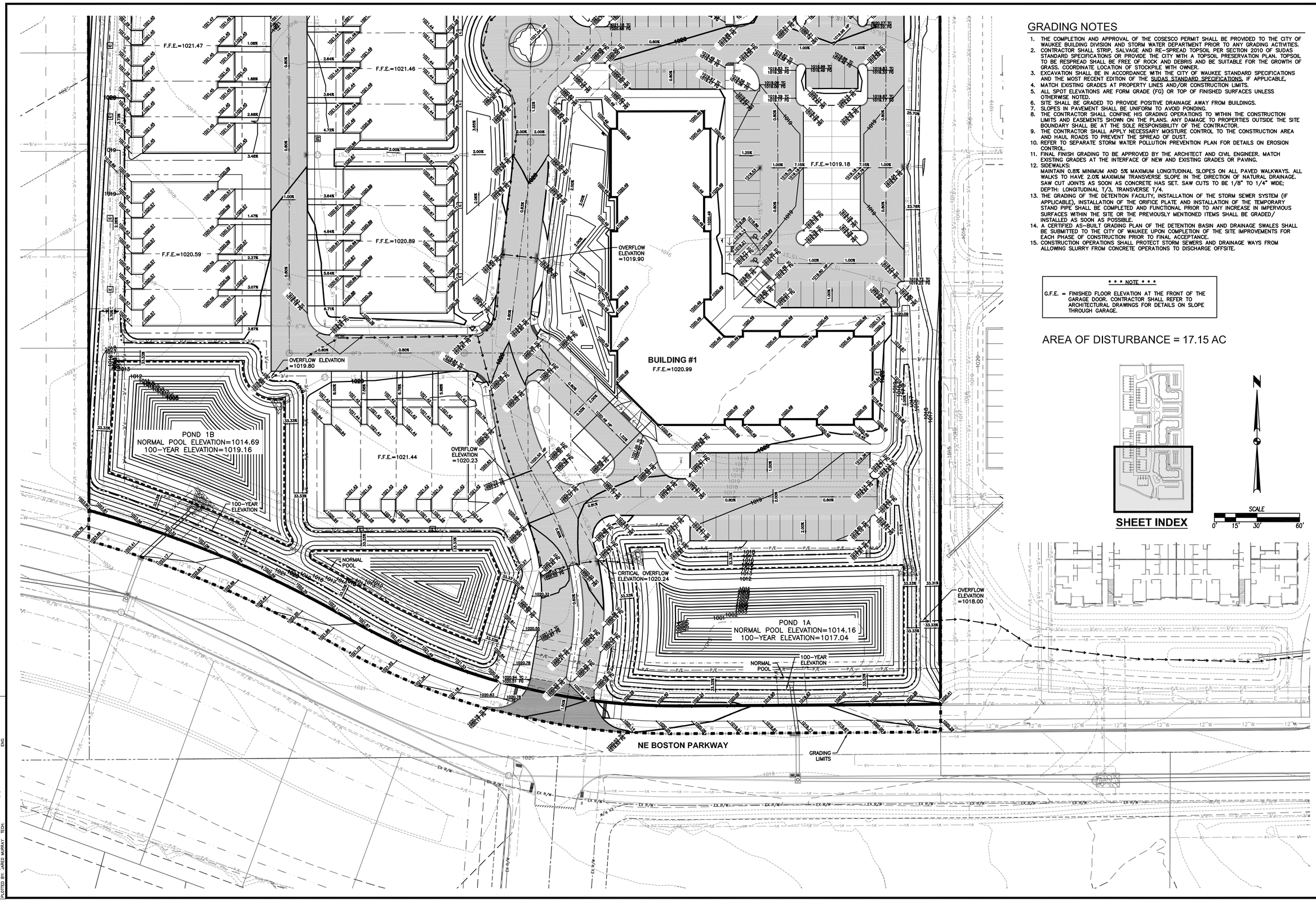

GRADING NOTES

1. THE COMPLETION AND APPROVAL OF THE COSESCO PERMIT SHALL BE PROVIDED TO THE CITY OF WAUKEE BUILDING DIVISION AND STORM WATER DEPARTMENT PRIOR TO ANY GRADING ACTIVITIES.
2. CONTRACTOR SHALL STRIP, SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE.
4. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
5. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
6. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
7. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
8. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
10. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
11. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
12. SIDEWALKS:
    MAINTAIN 0.8% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
13. THE GRADING OF THE DETENTION FACILITY, INSTALLATION OF THE STORM SEWER SYSTEM (IF APPLICABLE), INSTALLATION OF THE ORIFICE PLATE AND INSTALLATION OF THE TEMPORARY STAND PIPE SHALL BE COMPLETED AND FUNCTIONAL PRIOR TO ANY INCREASE IN IMPERVIOUS SURFACES WITHIN THE SITE OR THE PREVIOUSLY MENTIONED ITEMS SHALL BE GRADED/ INSTALLED AS SOON AS POSSIBLE.
14. A CERTIFIED AS-BUILT GRADING PLAN OF THE DETENTION BASIN AND DRAINAGE SWALES SHALL BE SUBMITTED TO THE CITY OF WAUKEE UPON COMPLETION OF THE SITE IMPROVEMENTS FOR EACH PHASE OF CONSTRUCTION PRIOR TO FINAL ACCEPTANCE.
15. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

*** * * NOTE * * ***

G.F.E. = FINISHED FLOOR ELEVATION AT THE FRONT OF THE GARAGE DOOR. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS ON SLOPE THROUGH GARAGE.

AREA OF DISTURBANCE = 17.15 AC

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1ST SUBMITTAL	09/14/16

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: EAH
CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
GRADING PLAN
WAUKEE, IOWA

9/25
1606.300

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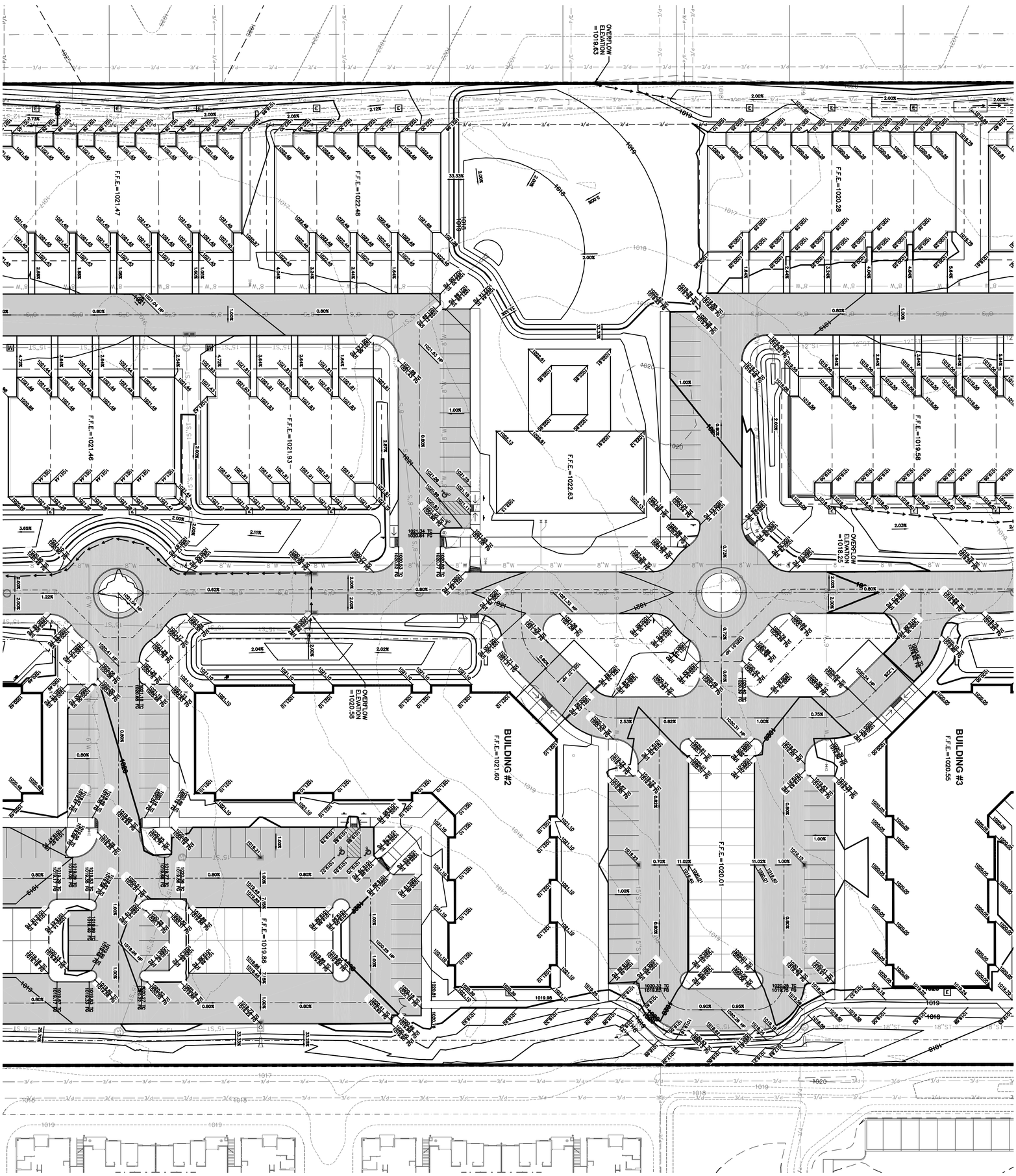

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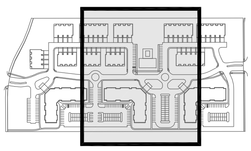

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10/25
1606.300

YARCO DEVELOPMENT

GRADING PLAN

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

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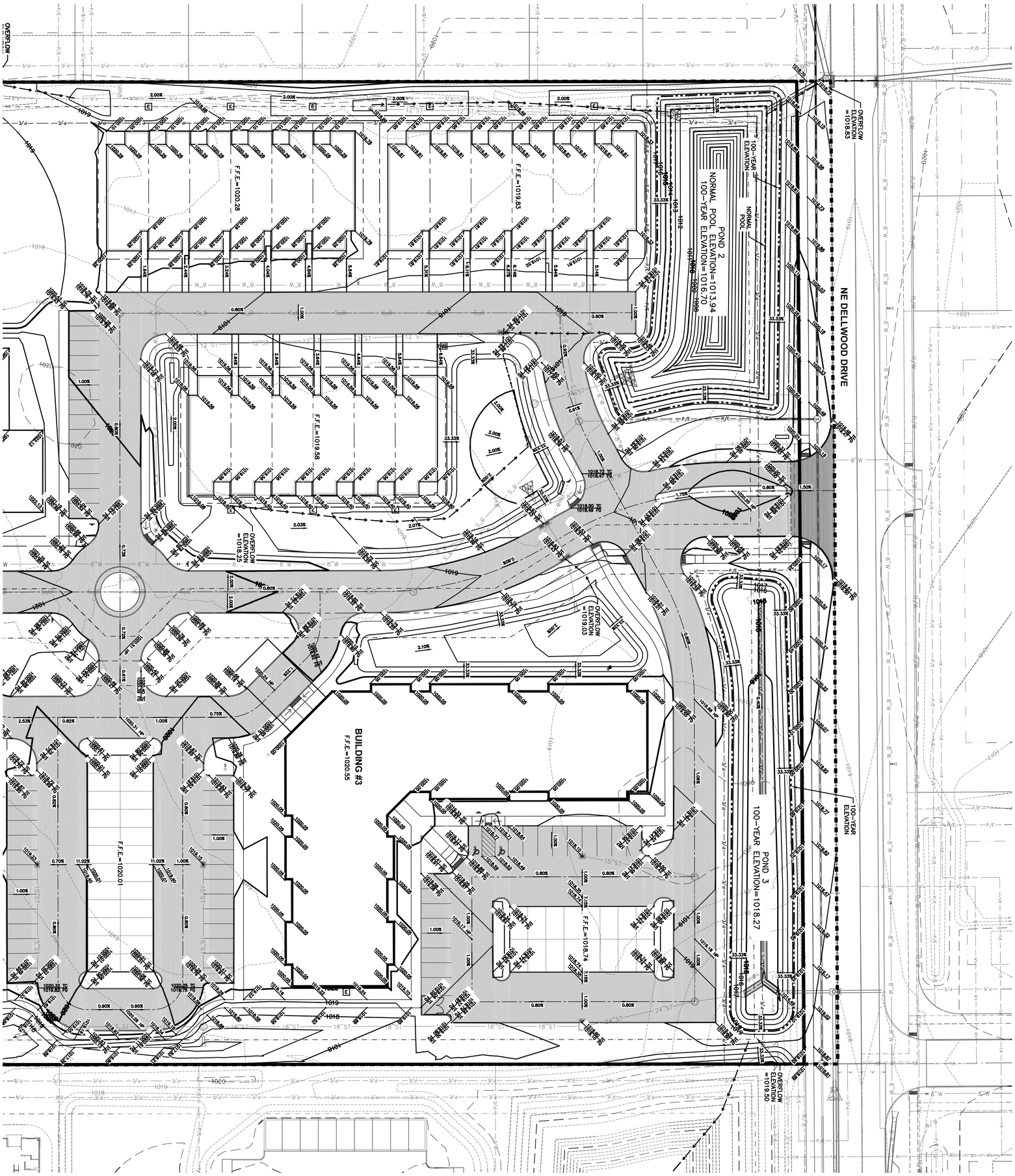

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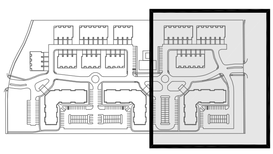

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GRADING PLAN

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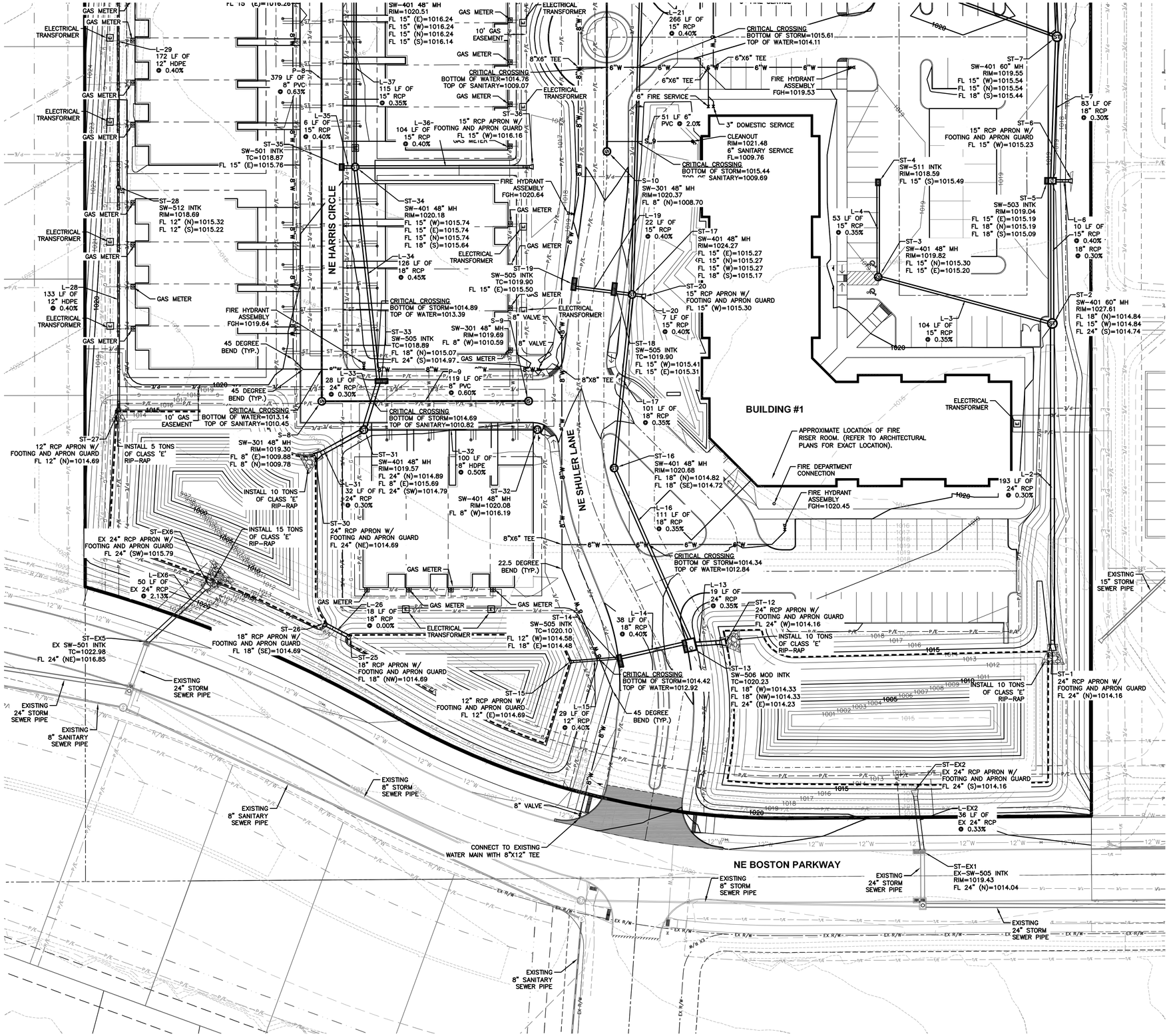
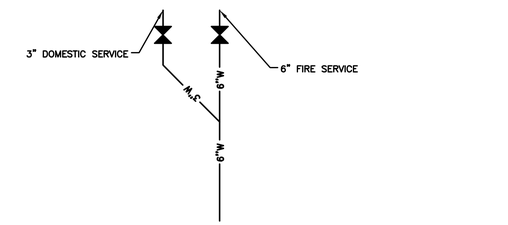
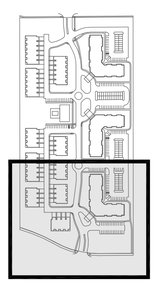


UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY OF WAUKEE STANDARD SPECIFICATIONS. MAINTAIN A MINIMUM OF 6.0' COVER OVER ALL WATERMAINS.
5. ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
6. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'B' CASTING.
7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
10. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
11. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
13. PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE LATEST VERSION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
14. OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE RETENTION FACILITIES AND PRIVATE UTILITIES.
15. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP DOWN INLET PROTECTION IS REQUIRED FOR PUBLIC STREETS.
16. CONTRACTOR SHALL TEST AND INSPECT ALL PROPOSED STORM SEWER, WATERMAIN AND SANITARY SEWER. THE CITY OF WAUKEE ENGINEERING DEPARTMENT IS REQUIRED TO WITNESS TESTING. ALL TESTING SHALL BE COMPLETED MEETING CITY OF WAUKEE STANDARDS.
17. ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
18. ALL PRIVATE AND PUBLIC SANITARY SEWER AND STORM SEWER PIPES SHALL BE CLEANED OUT AND TELEVISED PRIOR TO PAVING. ALL SANITARY MANHOLES SHALL BE VACUUMED TESTED. A HARD COPY OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
19. ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL BE CORE DRILLED AND A LINK SEAL SHALL BE USED FOR THE CONNECTION.
20. IT IS THE OWNER'S RESPONSIBILITY TO COORDINATE IRRIGATION AND METER PITS WITH THE WAUKEE PUBLIC WORKS DEPARTMENT.
21. ALL HYDRANTS SHALL HAVE STORZ FITTINGS.
22. ALL TOWNHOME UNITS WILL BE INDIVIDUALLY METERED. ALL APARTMENT UNITS WILL HAVE A MASTER METER FOR THE BUILDING.

TYPICAL WATER SERVICE DETAIL (BUILDINGS 1-3)





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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: EAH
CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
UTILITY PLAN
WAUKEE, IOWA

12/25
1606.300

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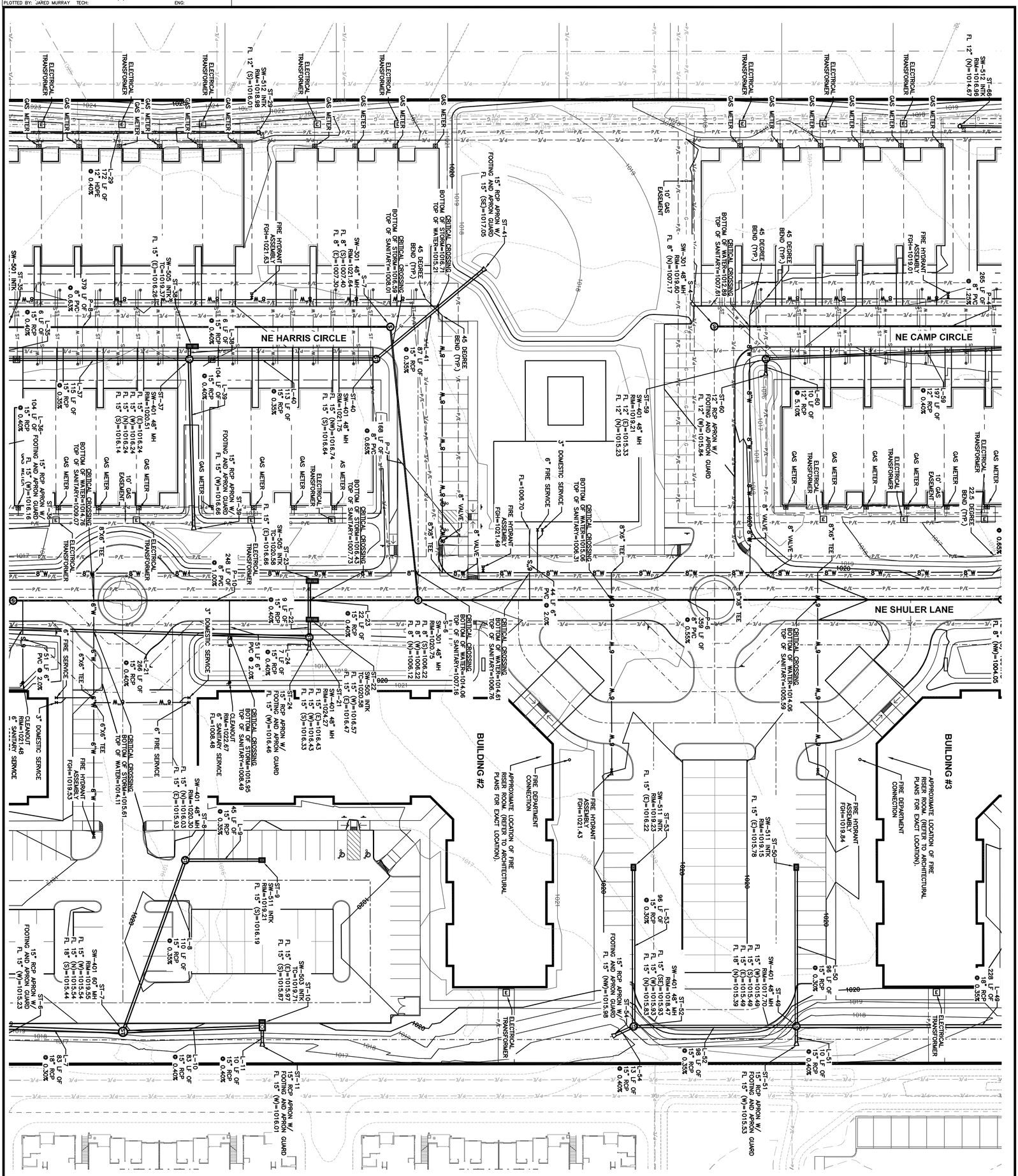

YARCO DEVELOPMENT

UTILITY PLAN

WAUKEE, IOWA

13/25

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CIVIL DESIGN ADVANTAGE

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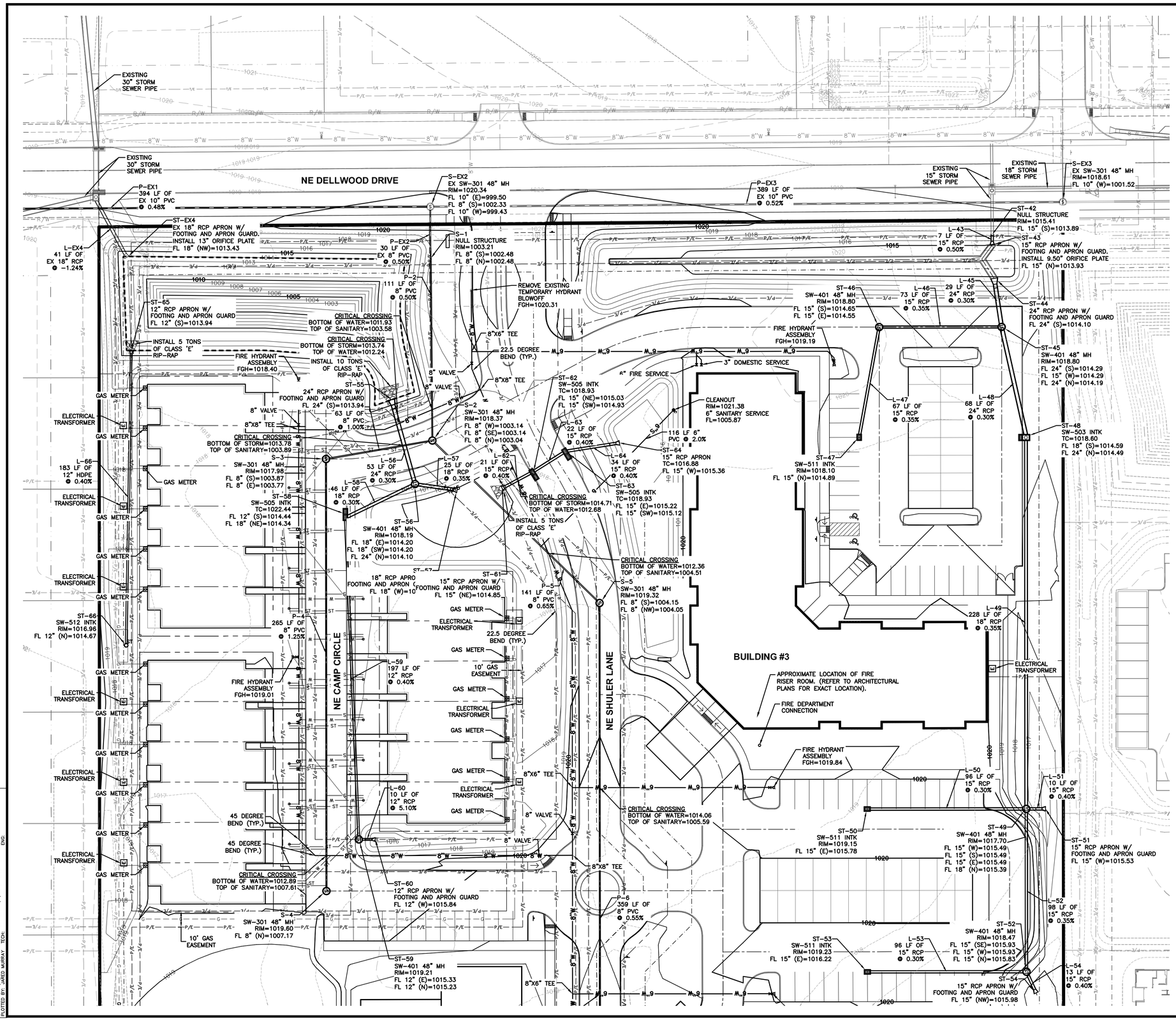

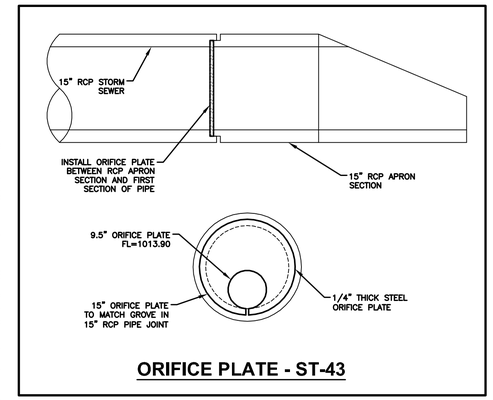

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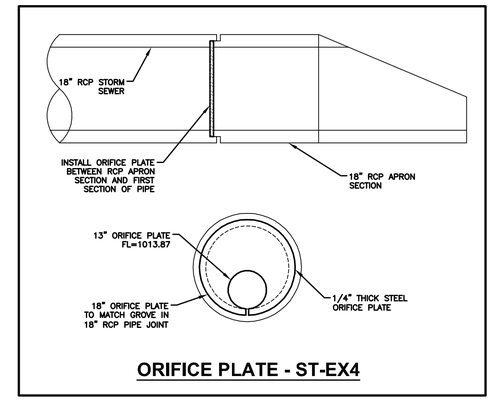

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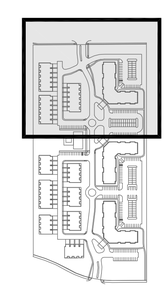

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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: EAH

CIVIL DESIGN ADVANTAGE

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UTILITY PLAN

WAUKEE, IOWA

14/25

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PLOTTED BY: JARED MURRAY TECH: ENG:

YARCO DEVELOPMENT

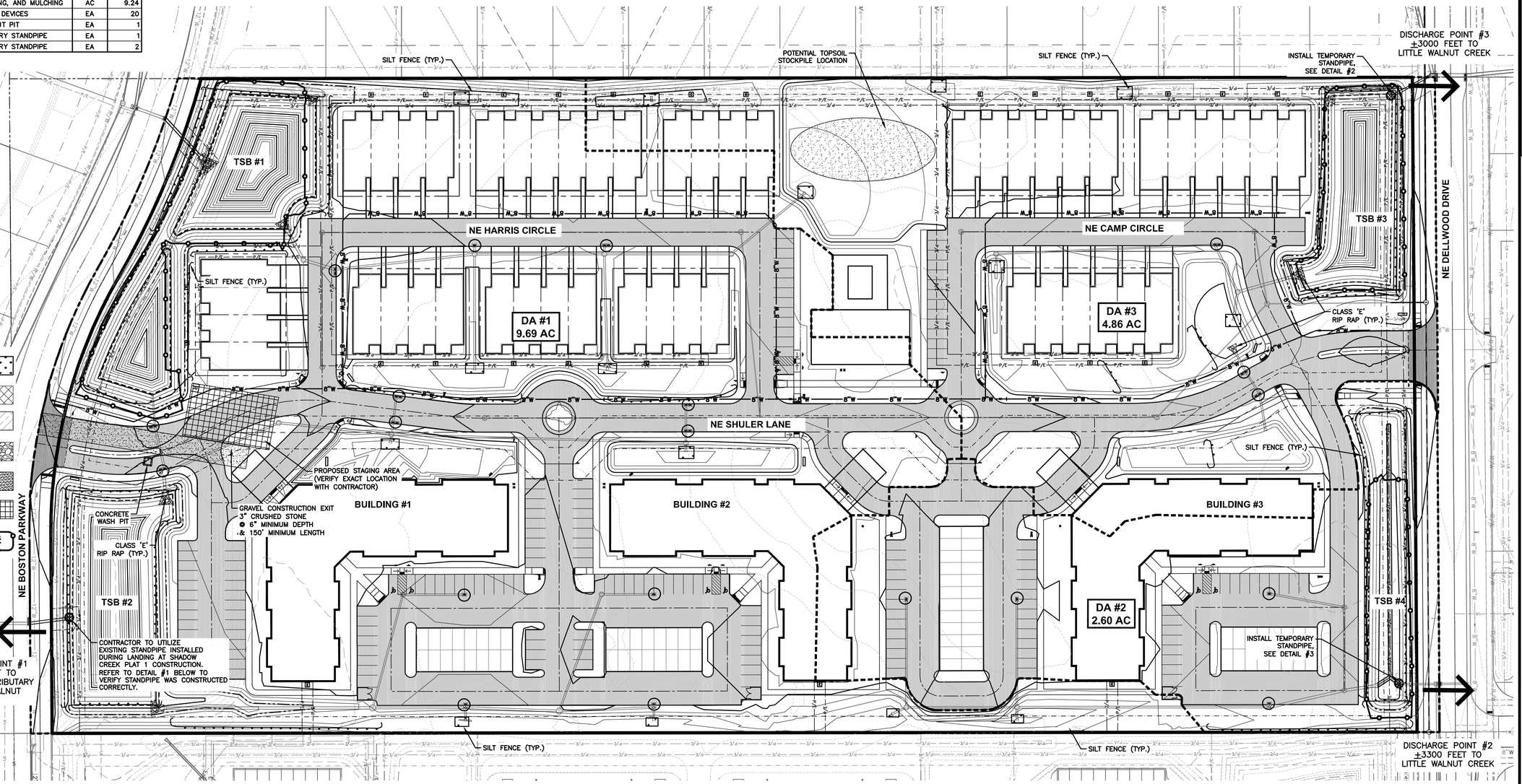
EROSION AND SEDIMENT CONTROL PLAN

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	4449
2	SEEDING, FERTILIZING, AND MULCHING	AC	9.24
3	INLET PROTECTION DEVICES	EA	20
4	CONCRETE WASHOUT PIT	EA	1
5	12" PVC TEMPORARY STANDPIPE	EA	1
6	15" PVC TEMPORARY STANDPIPE	EA	2

SWPPP LEGEND

- DRAINAGE ARROW (X.XX %)
- GRADING LIMITS
- FILTER SOCK
- SILT FENCE
- DITCH CHECK
- INLET PROTECTION
- PORTABLE RESTROOM (R)
- CONCRETE WASHOUT PIT
- TEMPORARY STANDPIPE
- AREA TO BE SEEDED
- STRAW MAT
- UNDISTURBED AREA
- RIPRAP
- GRAVEL ENTRANCE
- STAGING AREA
- TEMPORARY SEDIMENT BASIN (TSB #)



DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF LITTLE WALNUT CREEK ±3000 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	9.69 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	34,884 CU FT
VOLUME PROVIDED IN SILT FENCE (2,449 LF @ 4.5 CU FT/LF OF FENCE)	11,021 CU FT
VOLUME PROVIDED IN TSB #1 AND #2	121,732 CU FT
TOTAL VOLUME PROVIDED	132,753 CU FT

DISCHARGE POINT #2 TO LITTLE WALNUT CREEK ±3300 FT

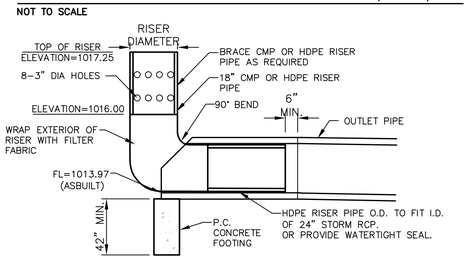
TOTAL AREA DISTURBED TO DISCHARGE POINT	2.60 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	9,360 CU FT
VOLUME PROVIDED IN SILT FENCE (919 LF @ 4.5 CU FT/LF OF FENCE)	4,136 CU FT
VOLUME PROVIDED IN TSB #3	10,449 CU FT
TOTAL VOLUME PROVIDED	14,585 CU FT

DISCHARGE POINT #3 TO LITTLE WALNUT CREEK ±3000 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	4.86 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	17,496 CU FT
VOLUME PROVIDED IN SILT FENCE (1081 LF @ 4.5 CU FT/LF OF FENCE)	4,865 CU FT
VOLUME PROVIDED IN TSB #4	34,743 CU FT
TOTAL VOLUME PROVIDED	39,608 CU FT

EXISTING TEMPORARY STAND PIPE DETAIL #1 (U.A.C.)

NOT TO SCALE



TEMPORARY STAND PIPE DETAIL #2 (TSB #3)

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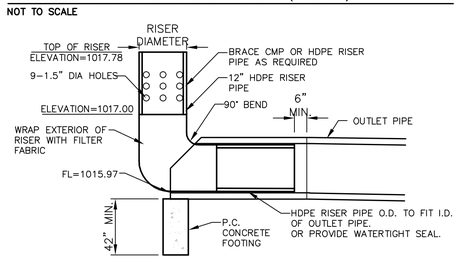

TEMPORARY STAND PIPE DETAIL #3 (TSB #4)

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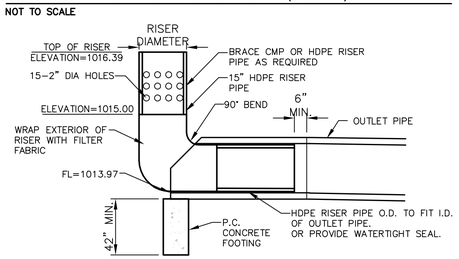

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CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
EROSION AND SEDIMENT CONTROL PLAN
WAUKEE, IOWA

15/25

1606.300

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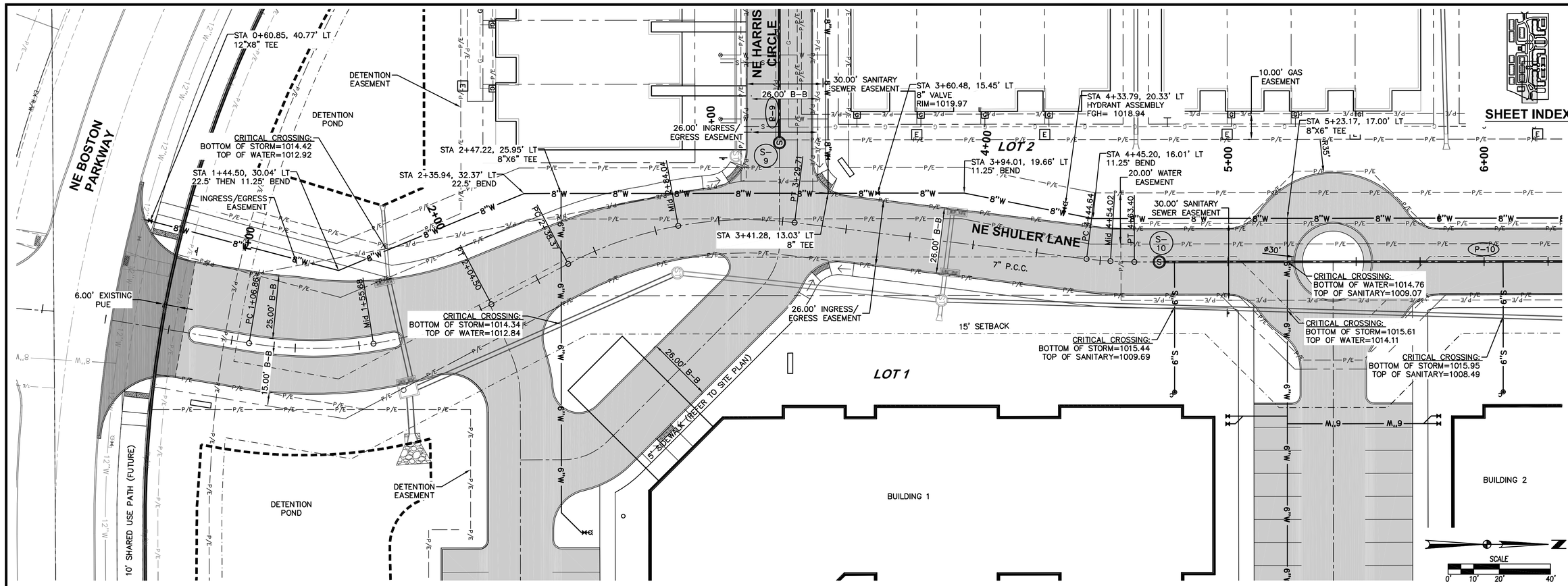

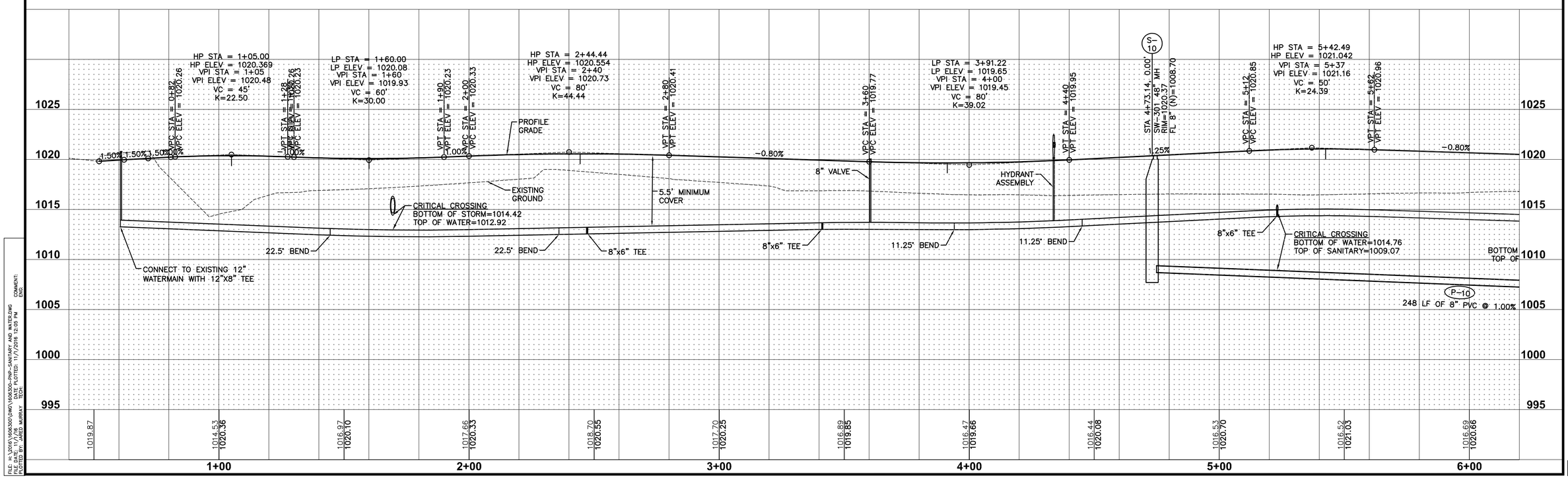

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YARCO DEVELOPMENT
SANITARY SEWER AND WATER MAIN PLAN AND PROFILE

WAUKEE, IOWA

16/25

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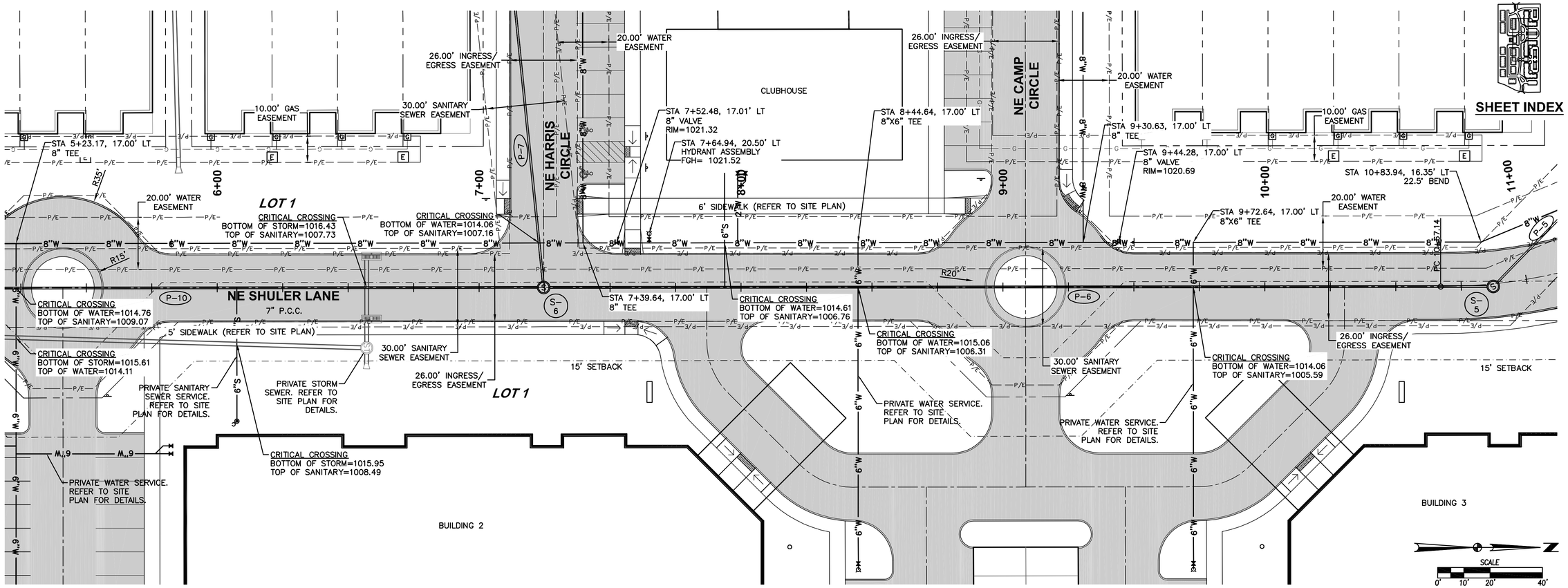

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WAUKEE, IOWA

17/25

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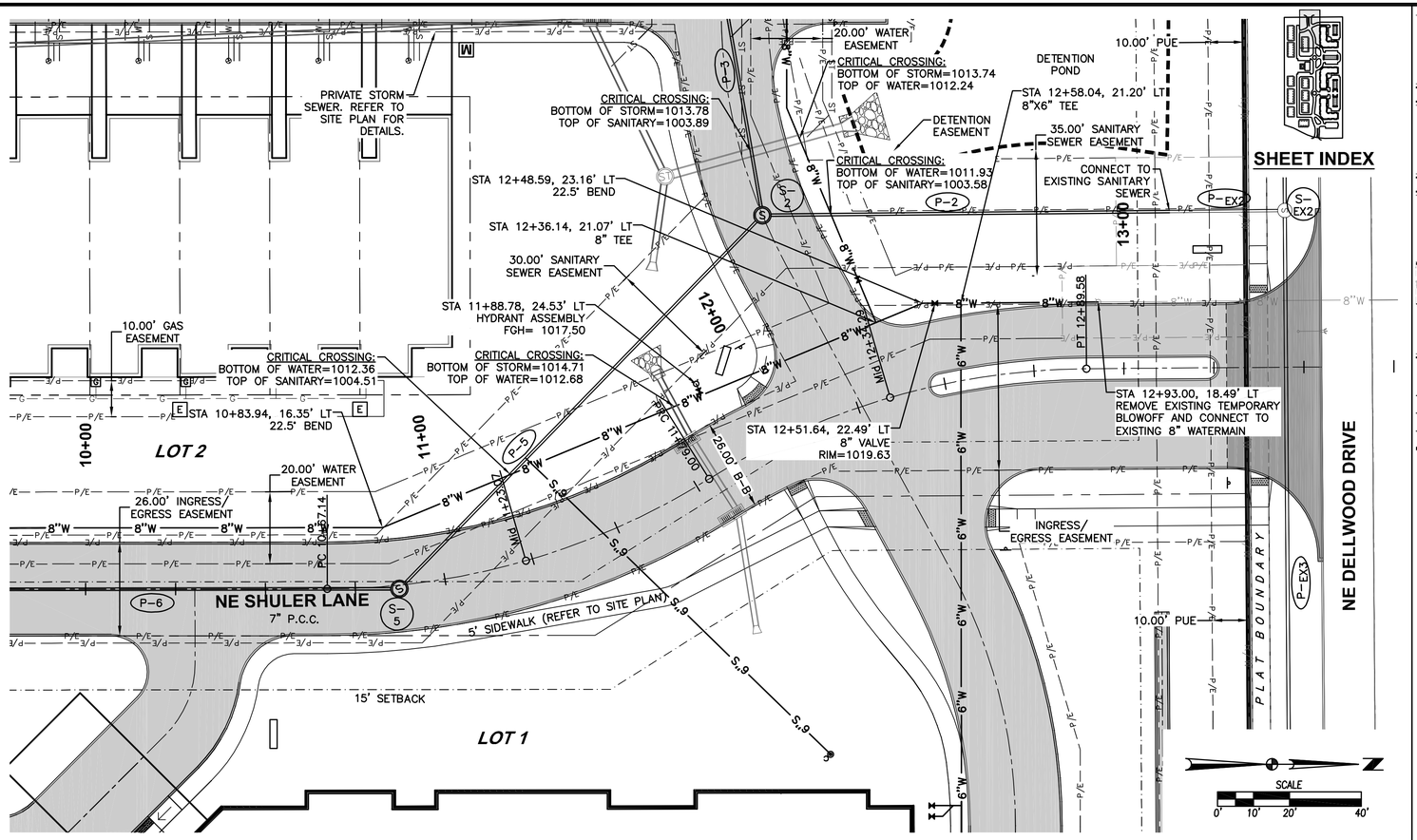

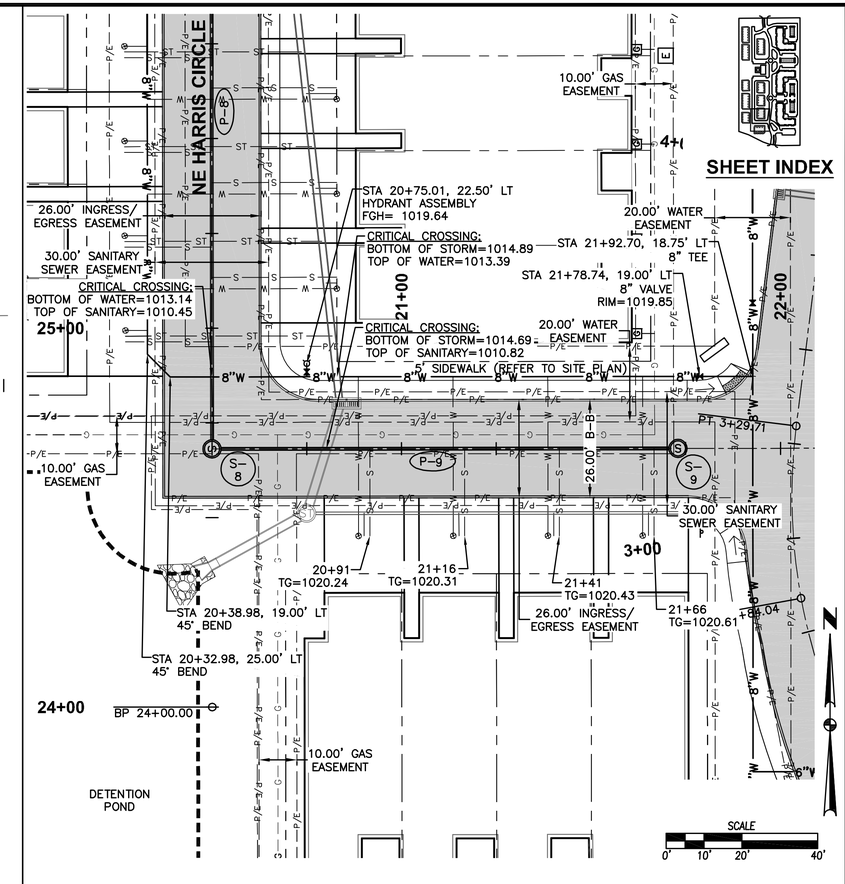

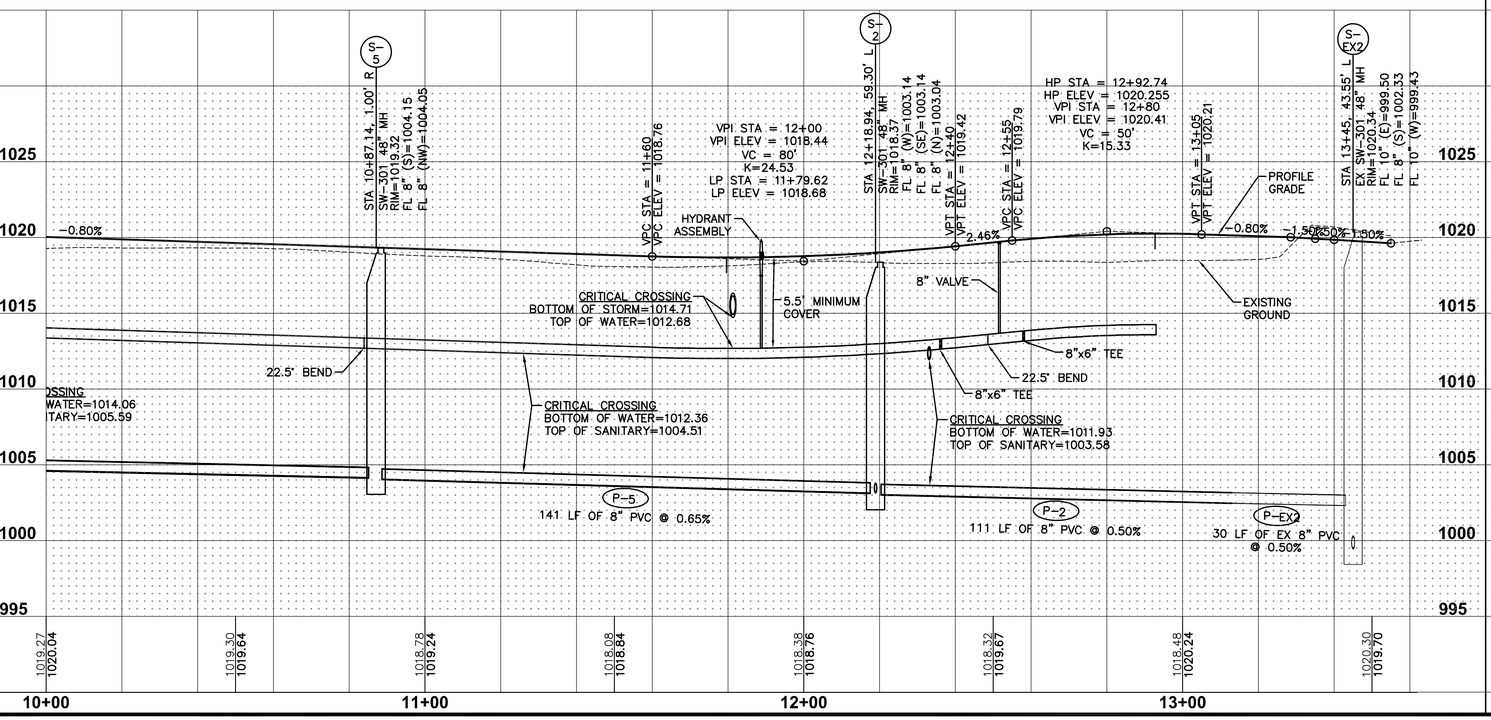

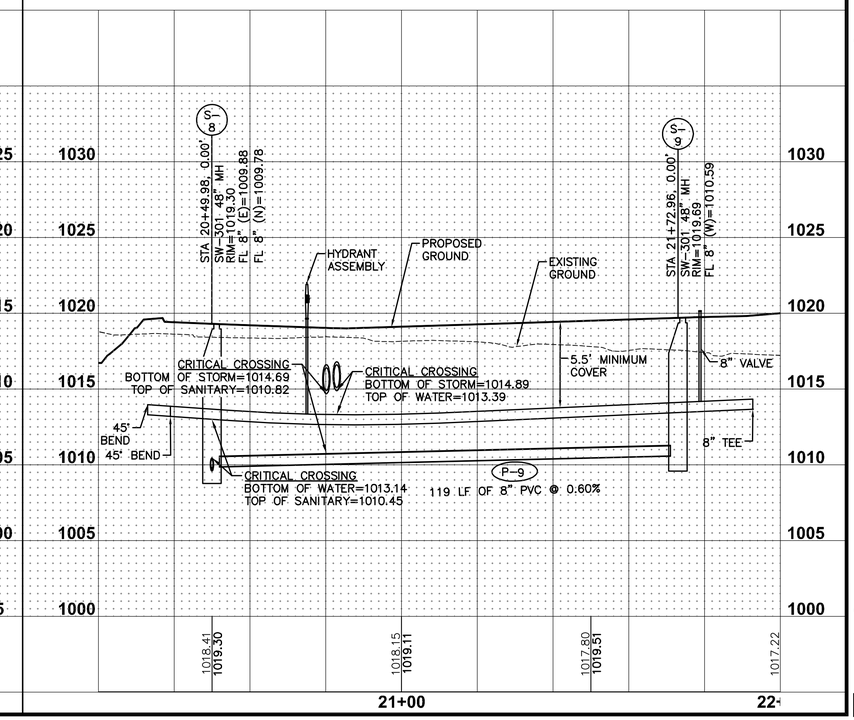

REVISIONS	DATE
3RD SUBMITTAL	11/01/16
2ND SUBMITTAL	10/14/16
1ST SUBMITTAL	09/14/16

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: EAH
CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
SANITARY SEWER AND WATER MAIN
PLAN AND PROFILE

WAUKEE, IOWA

1606.300

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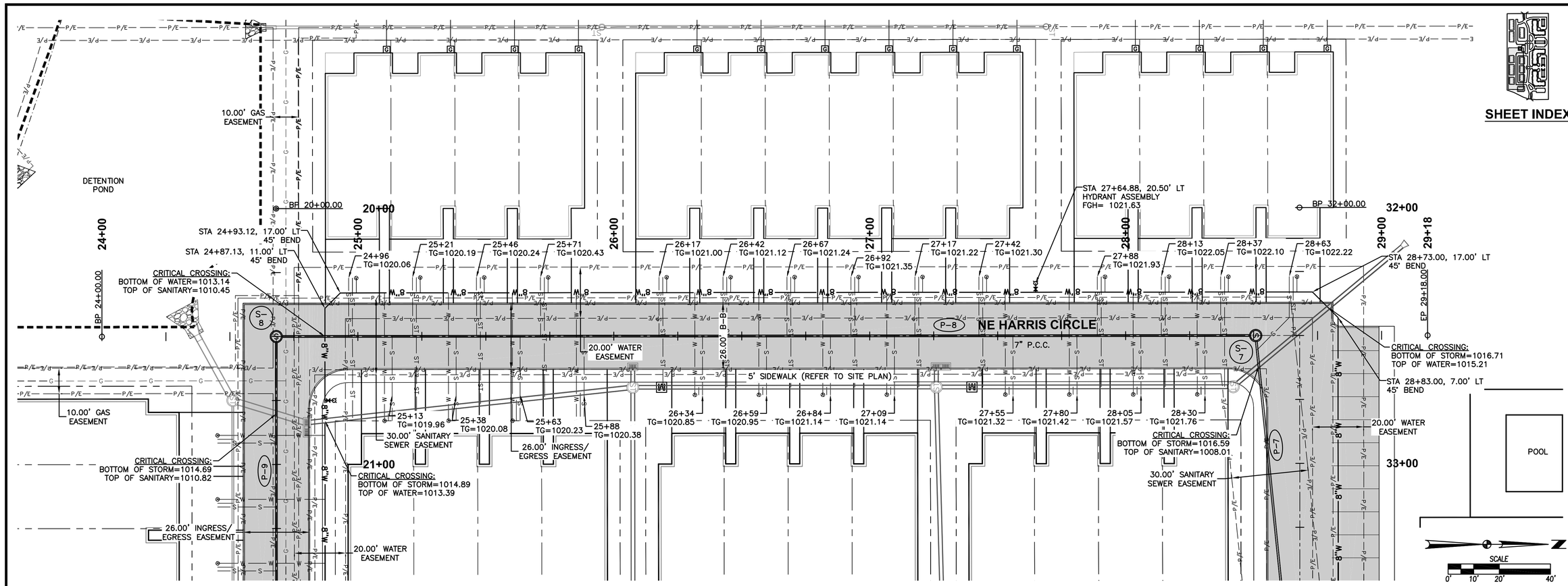

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YARCO DEVELOPMENT
SANITARY SEWER AND WATER MAIN
PLAN AND PROFILE

WAUKEE, IOWA

19/25

1606.300

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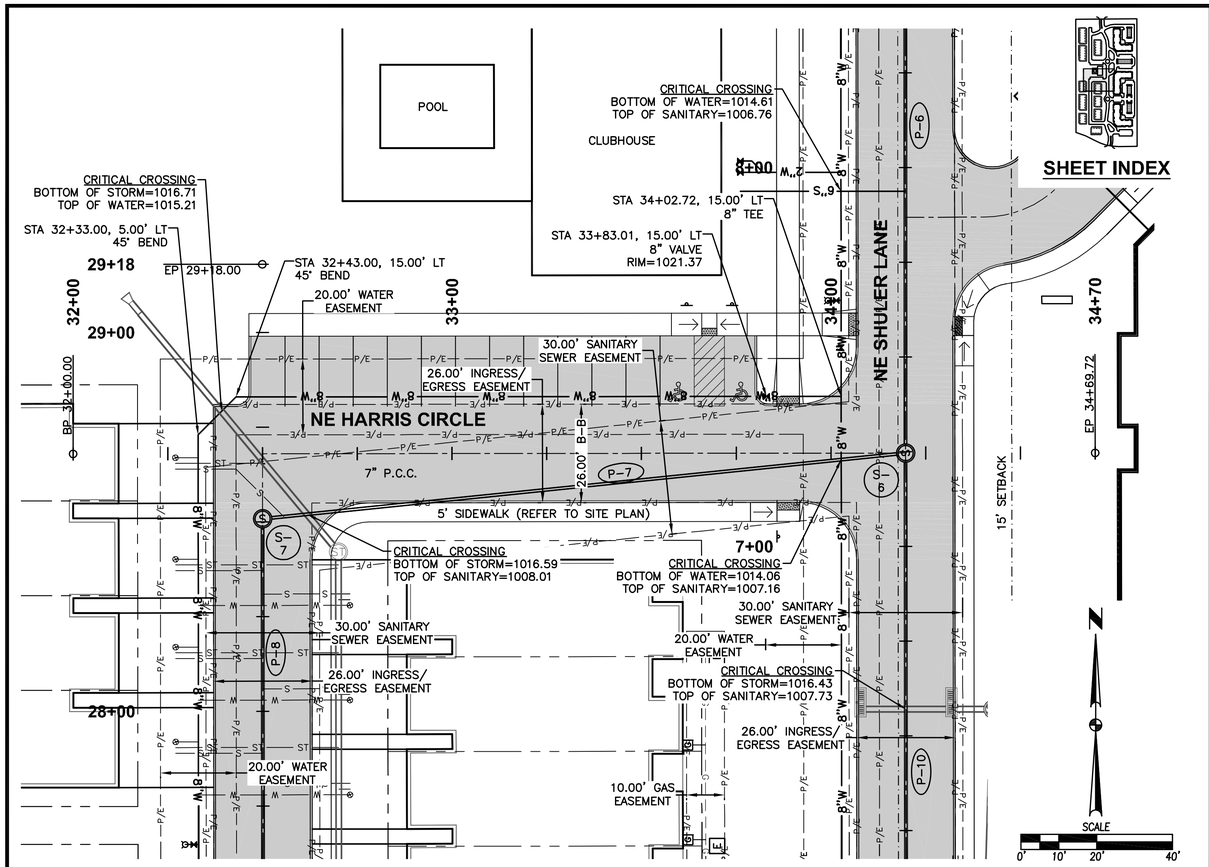

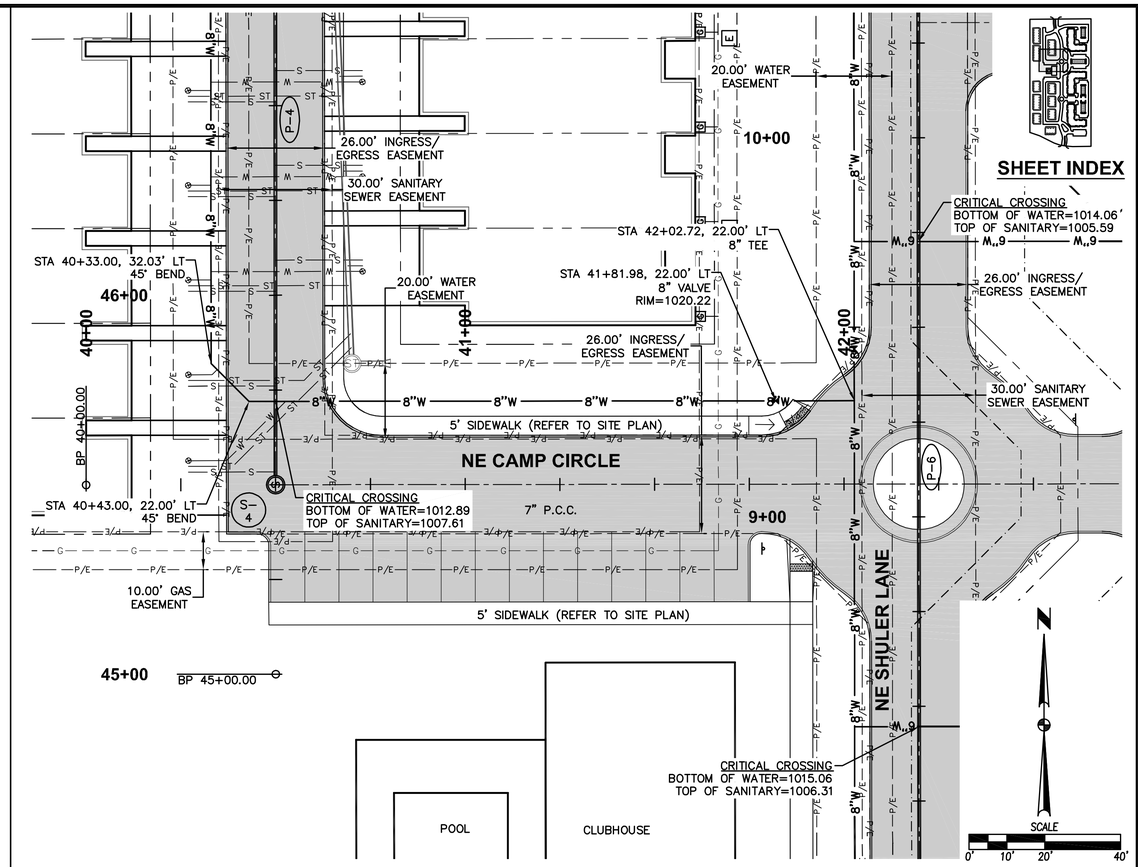

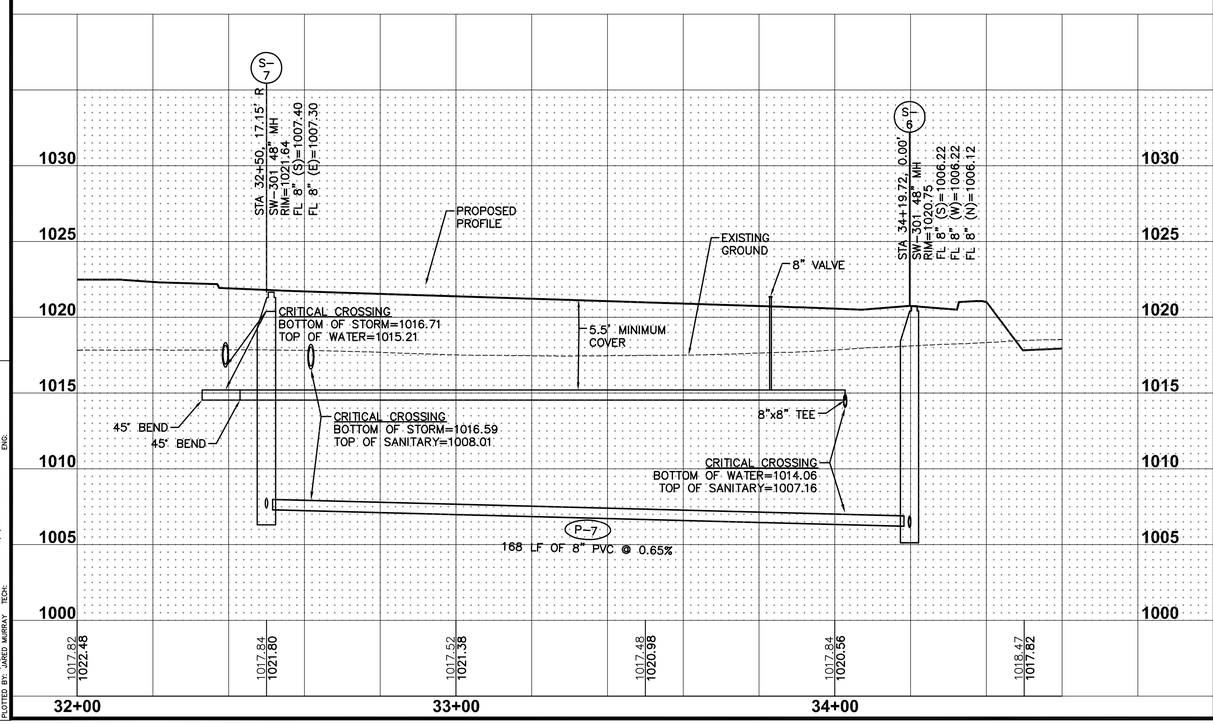

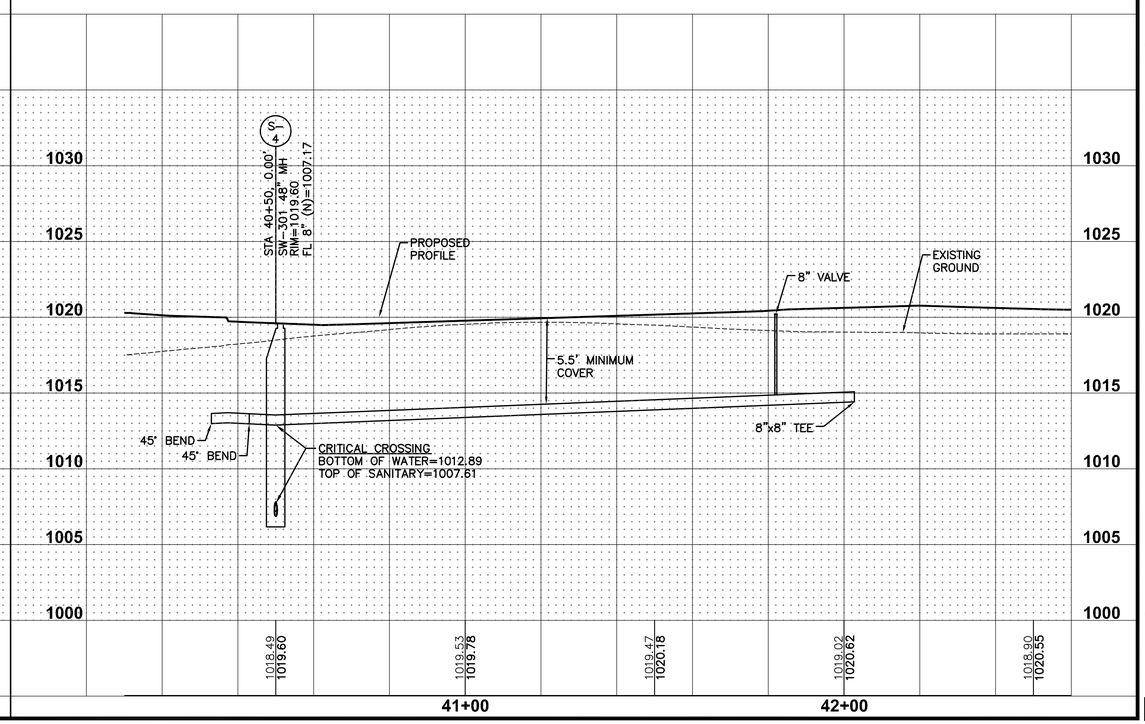

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WAUKEE, IOWA

20/25

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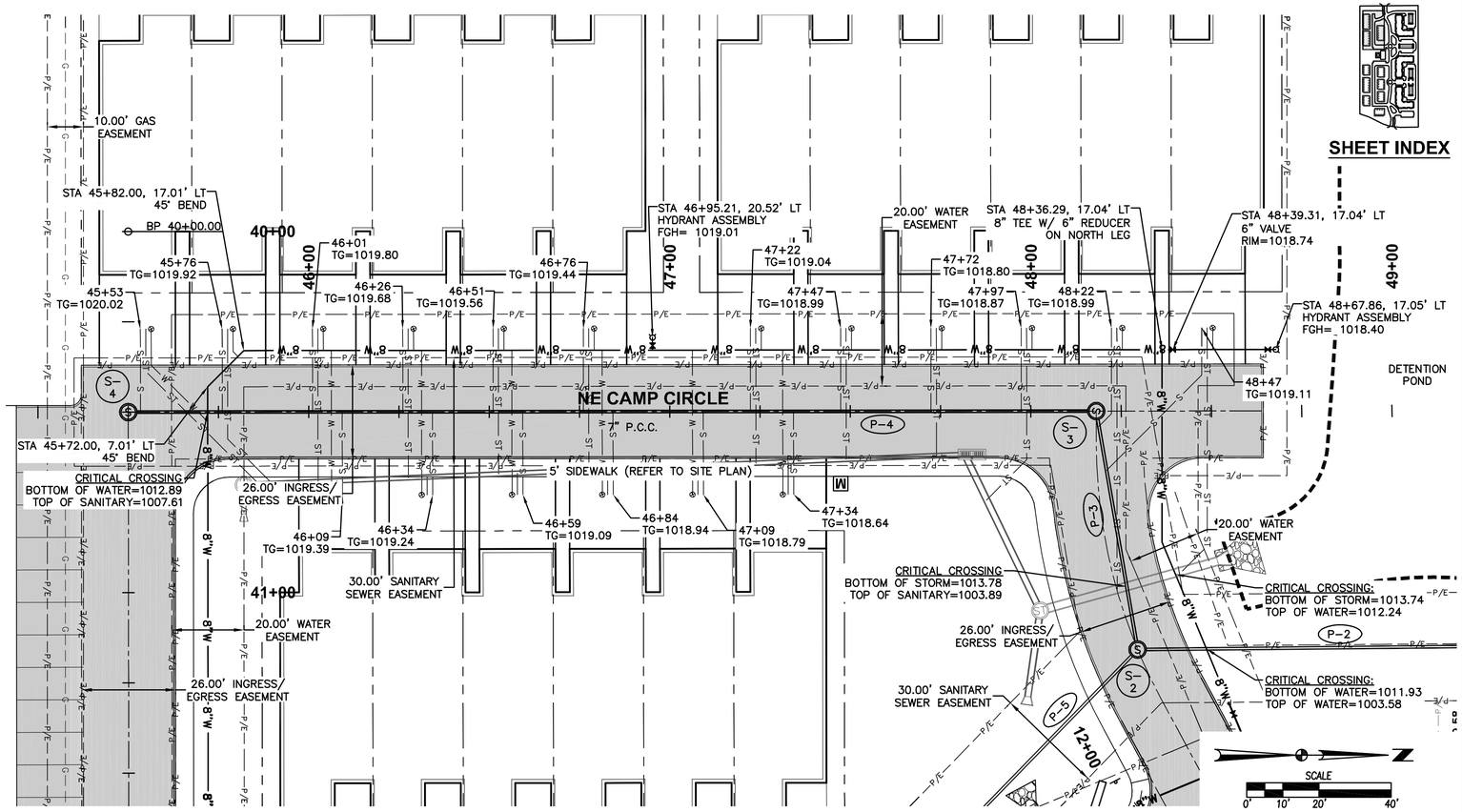

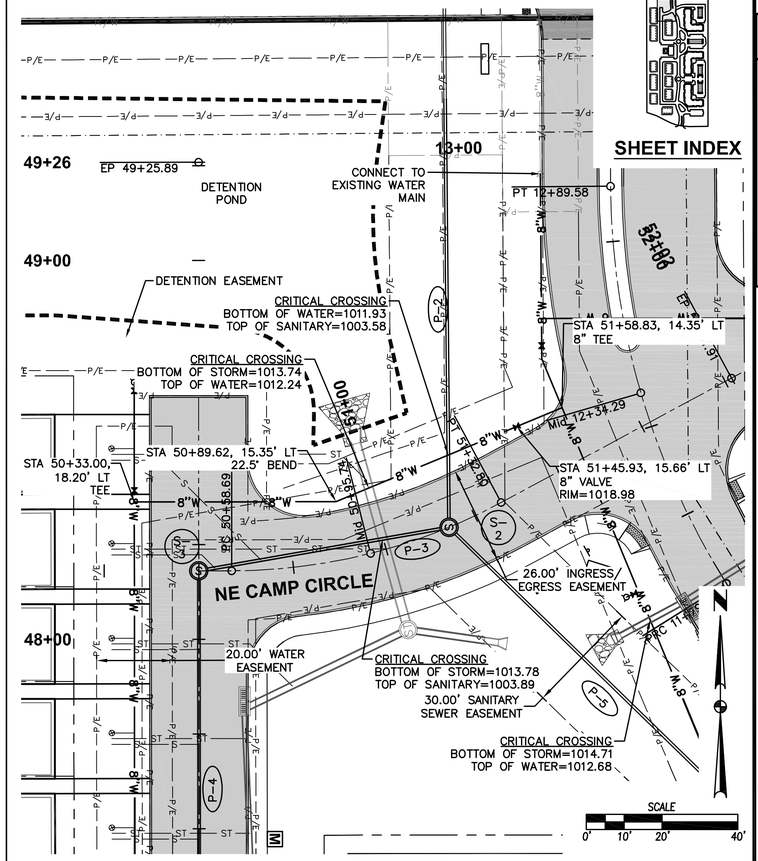

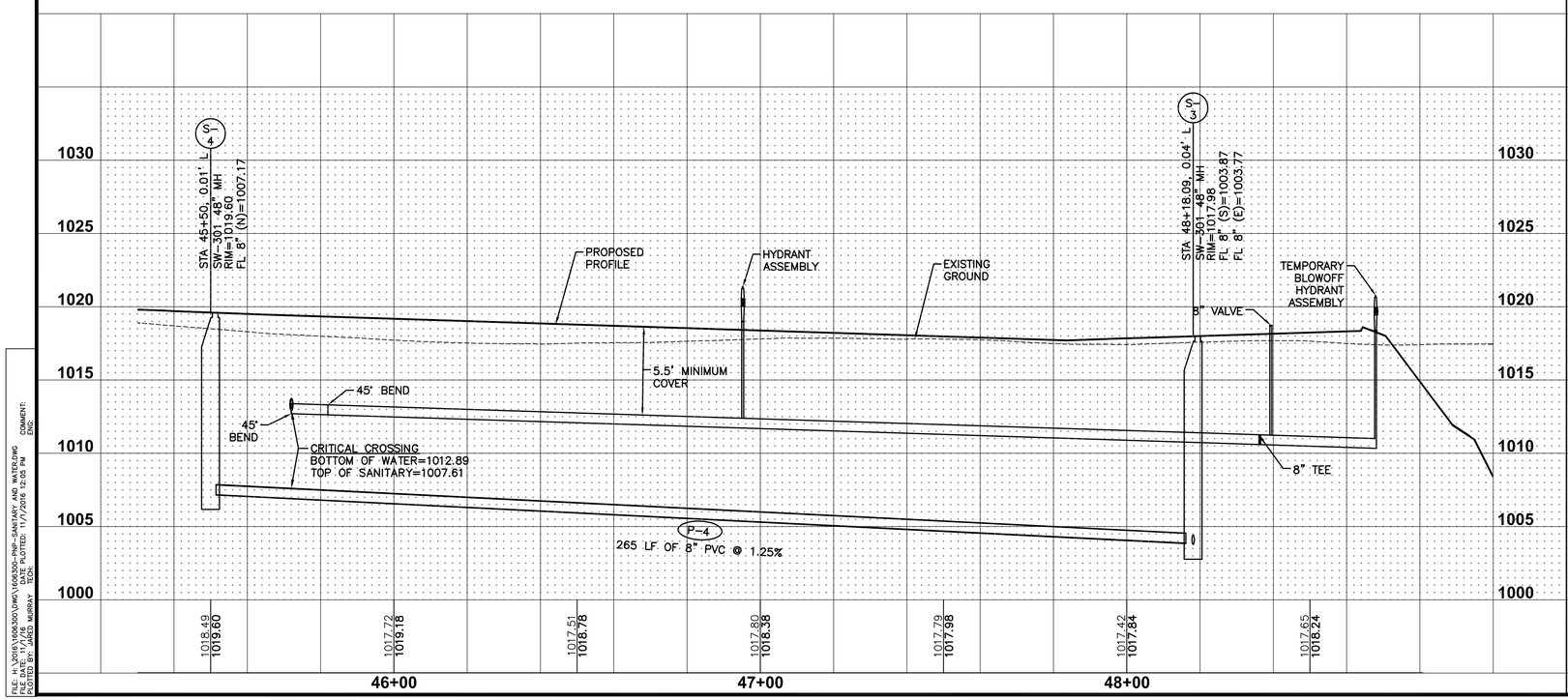

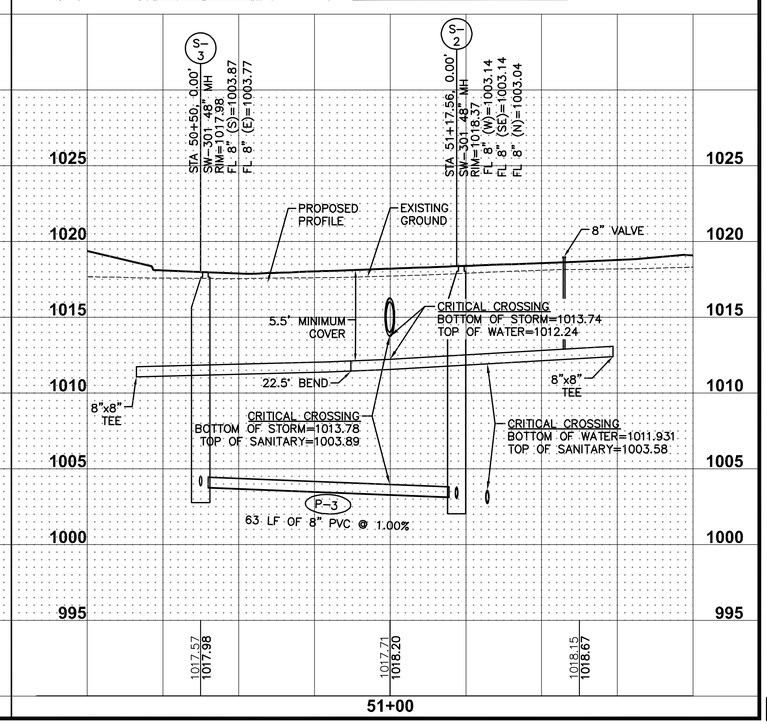

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21/25

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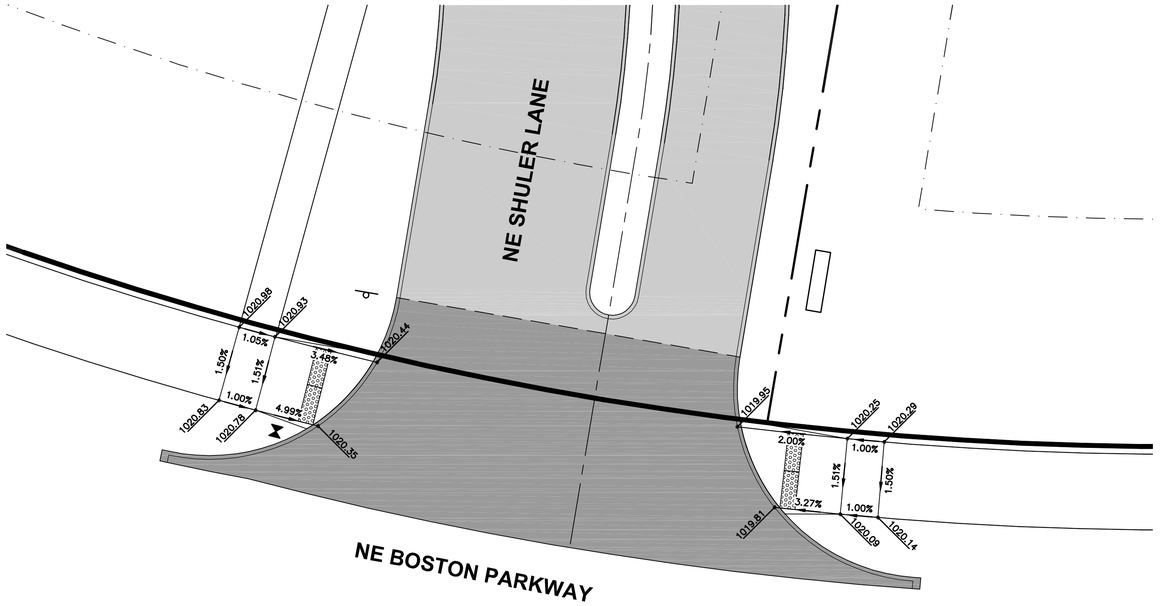

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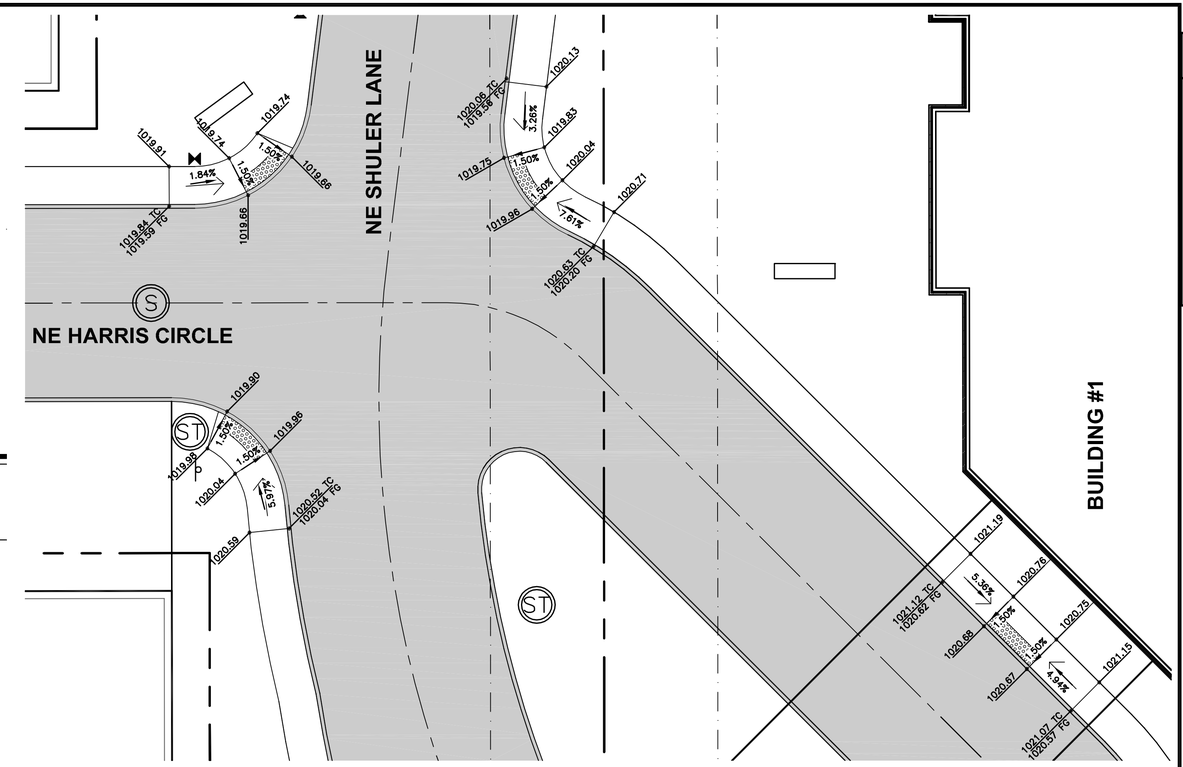

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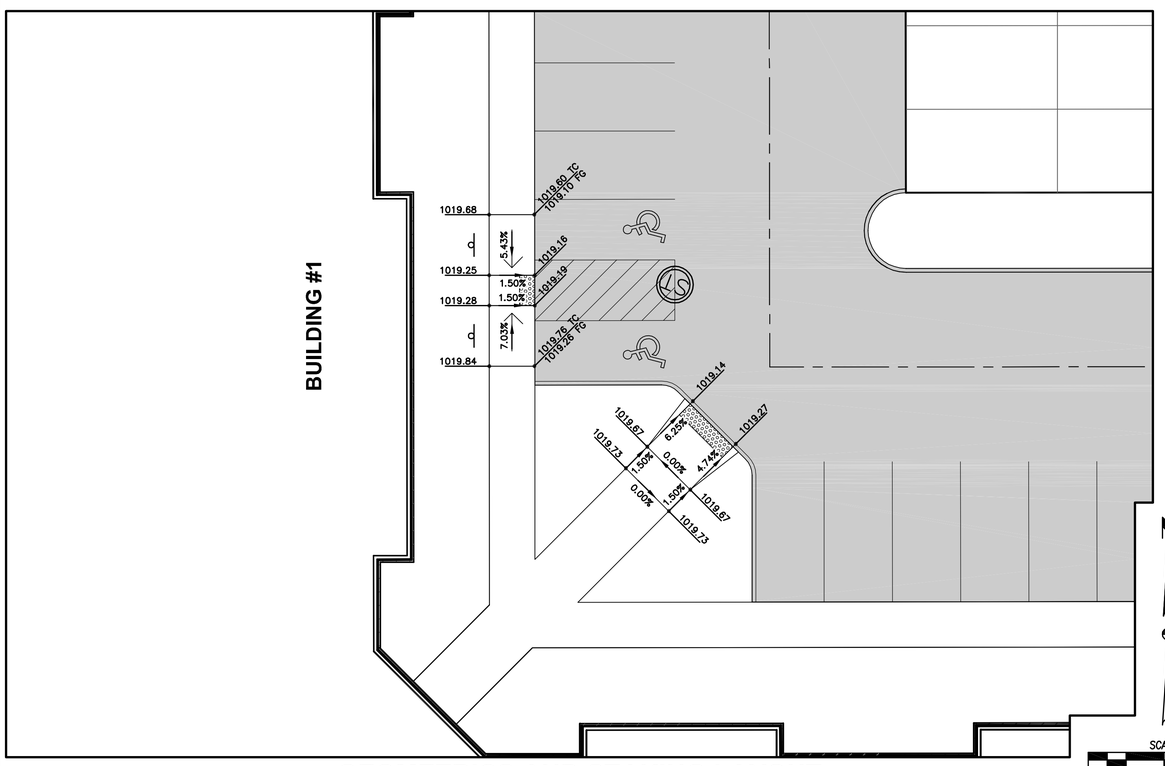

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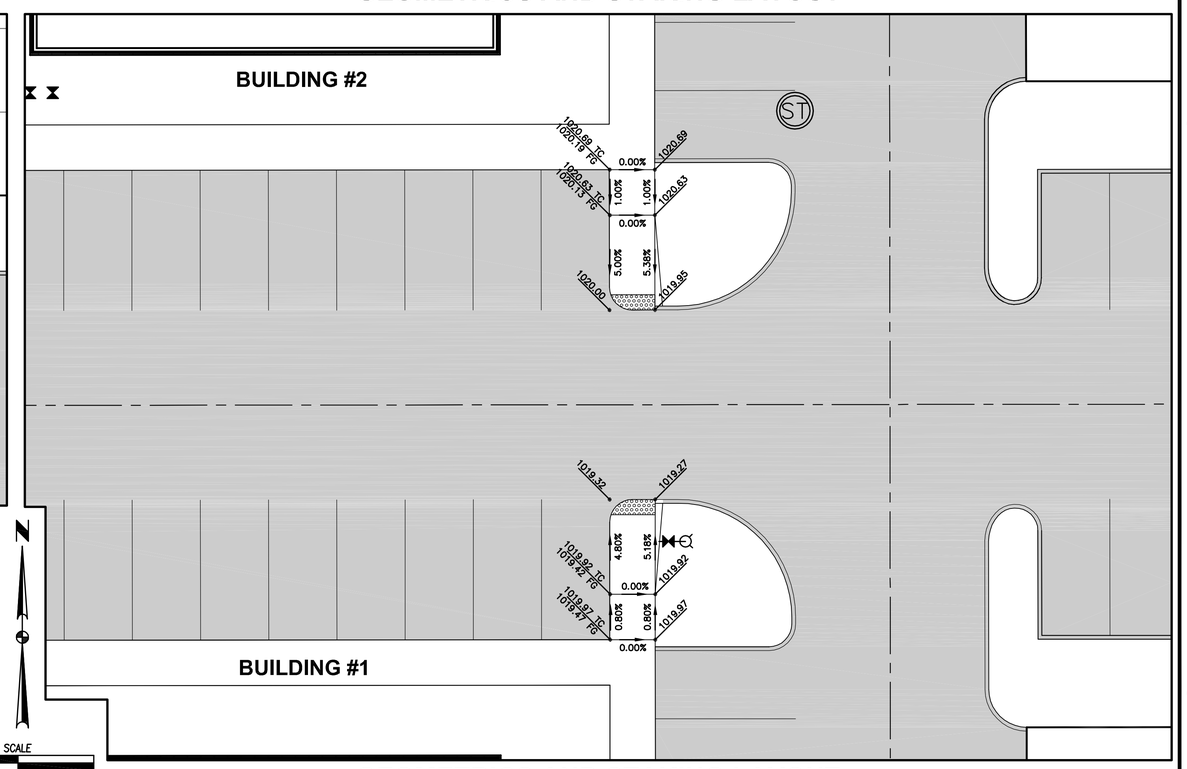

GEOMETRICS AND STAKING LAYOUT

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SCALE
0' 5' 10' 20'

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CIVIL DESIGN ADVANTAGE

YARCO DEVELOPMENT
INTERSECTION DETAILS

WAUKEE, IOWA

22/25

1606.300

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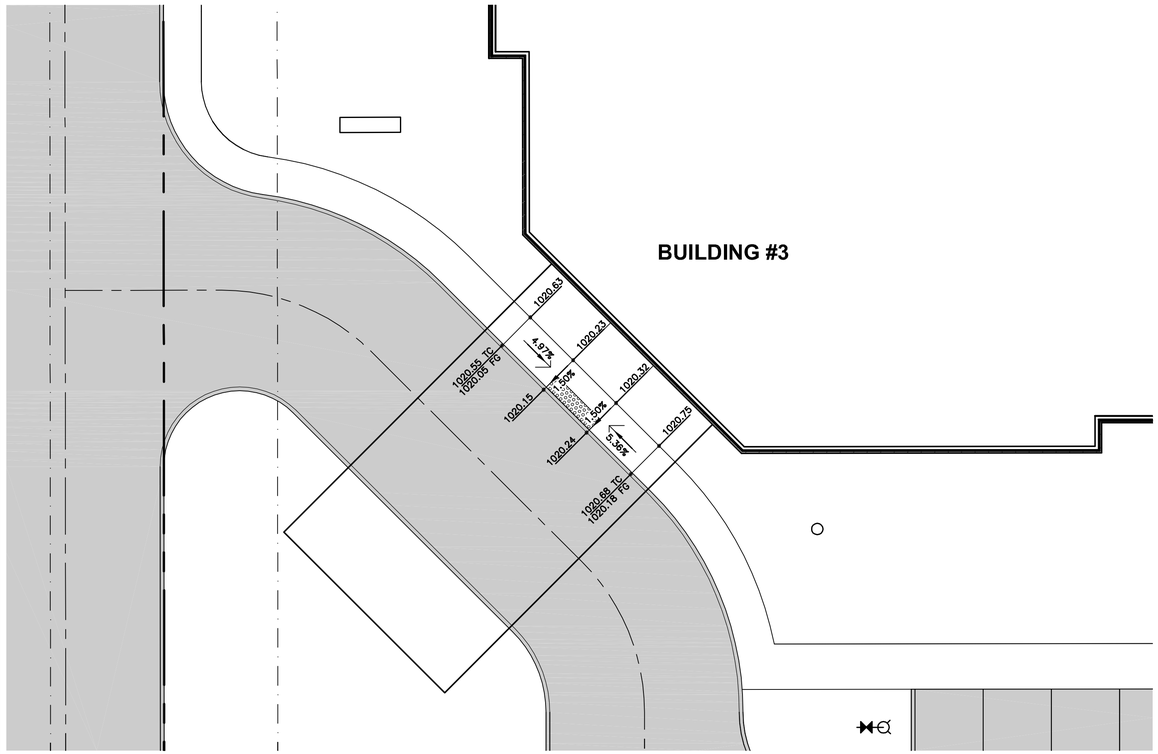

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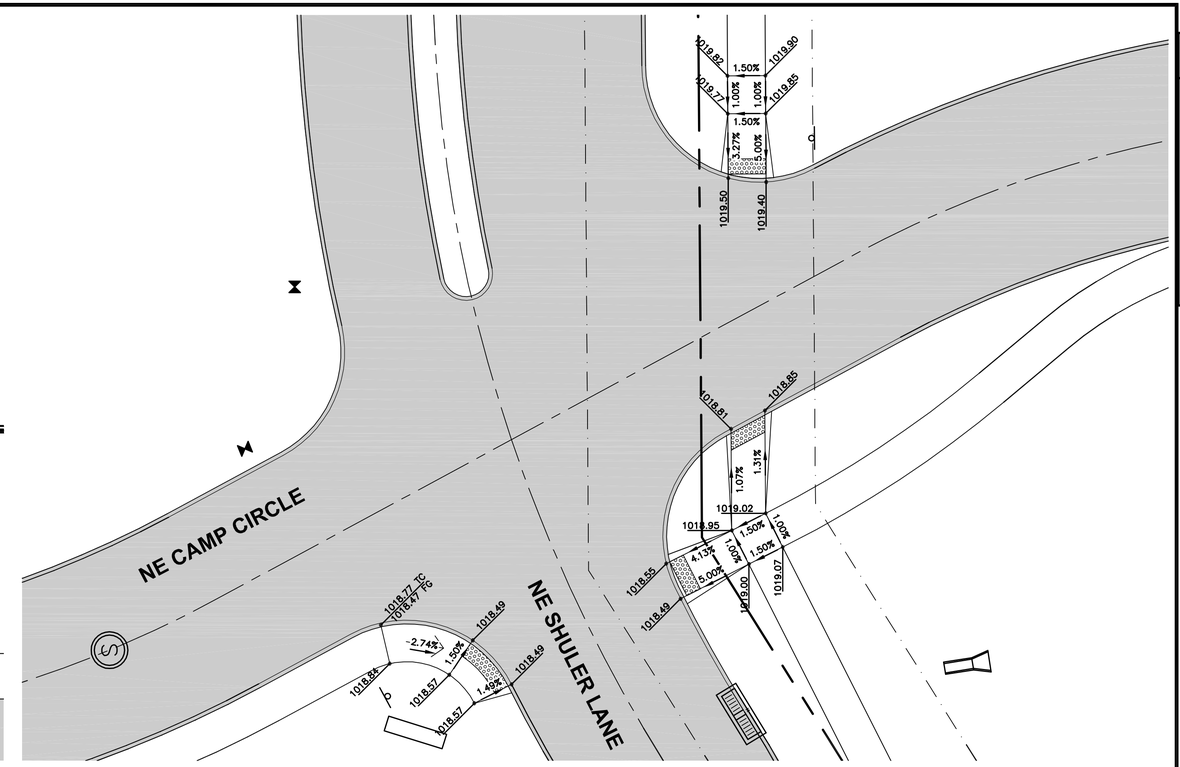

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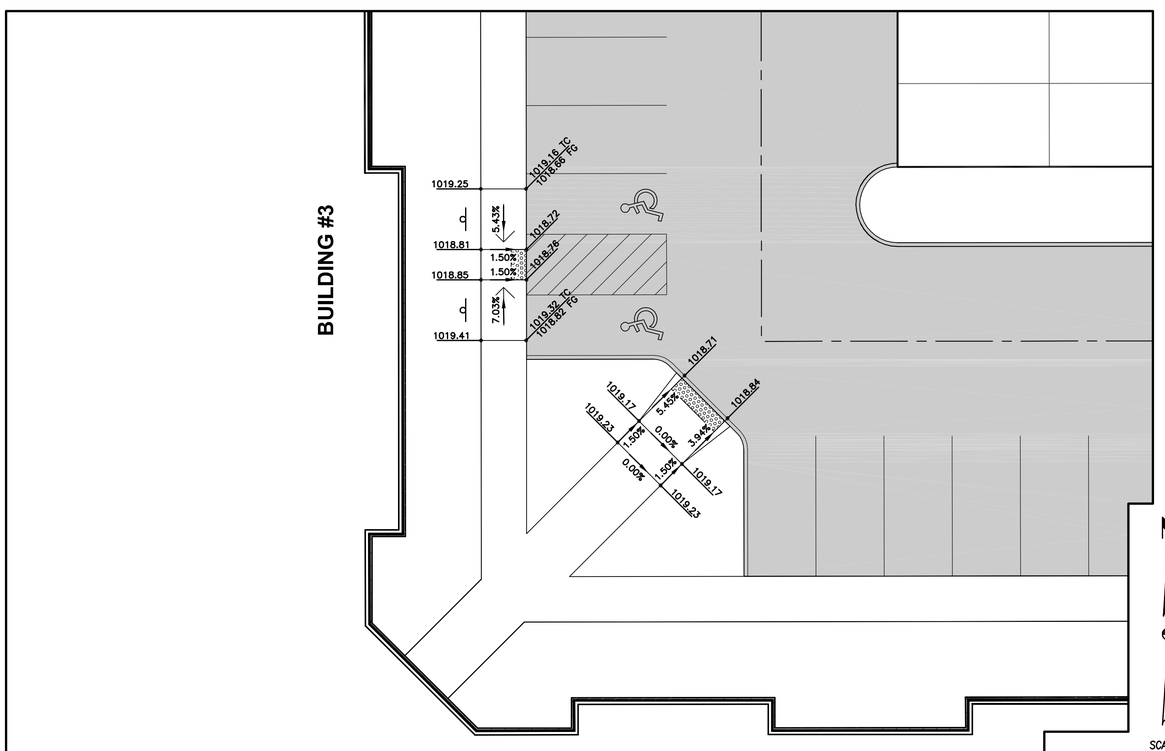

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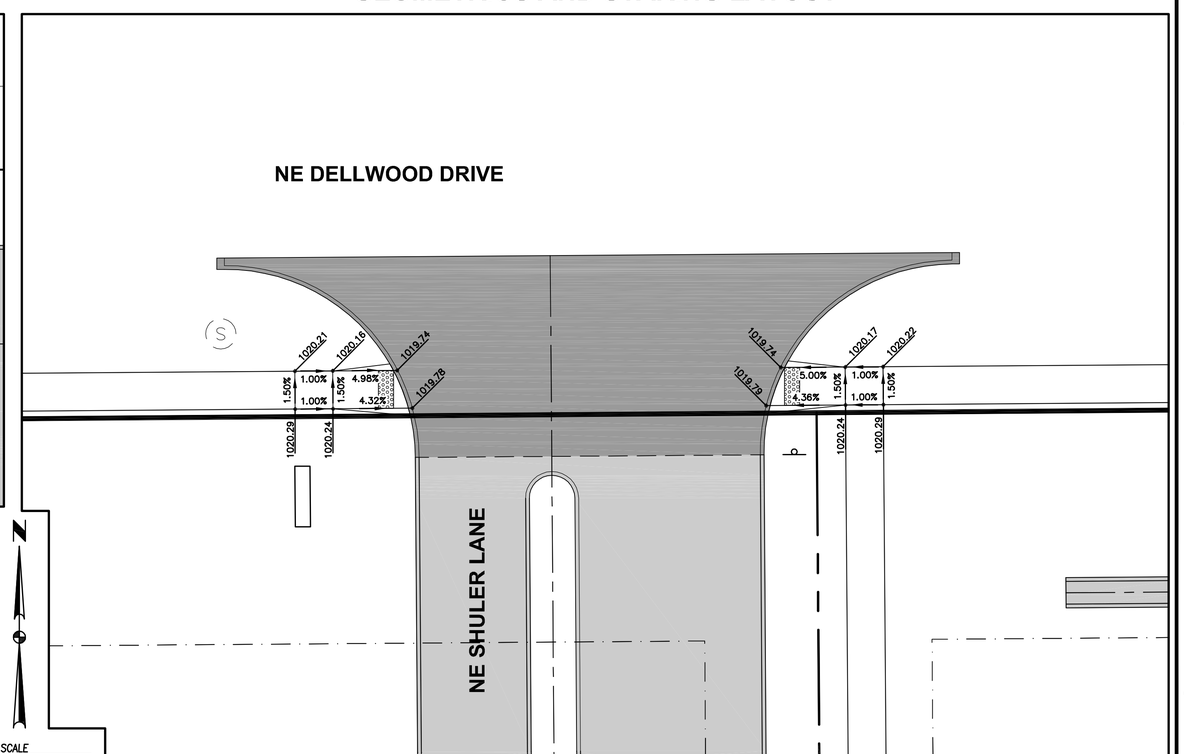

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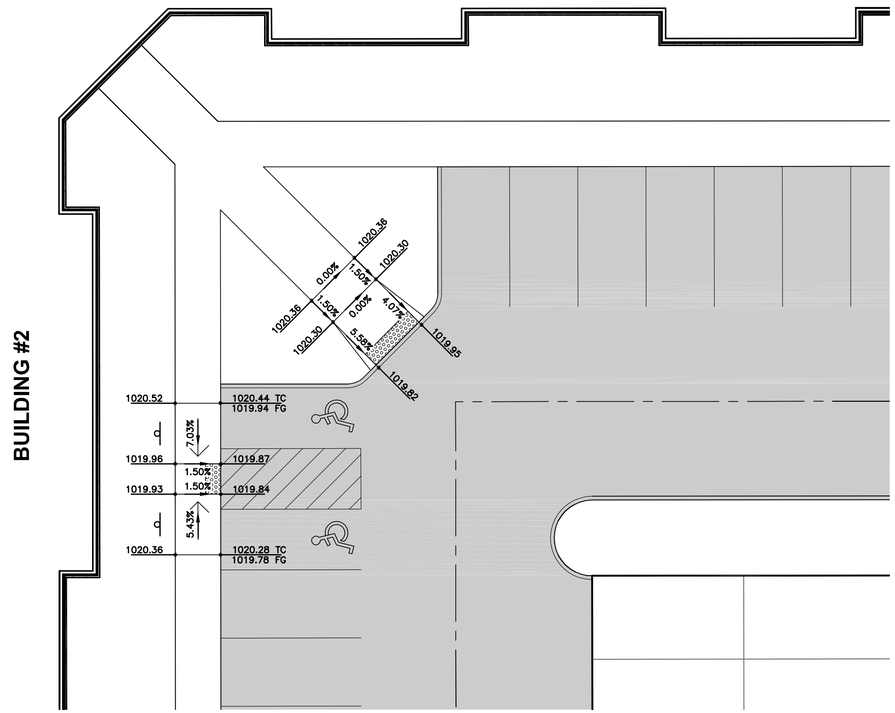

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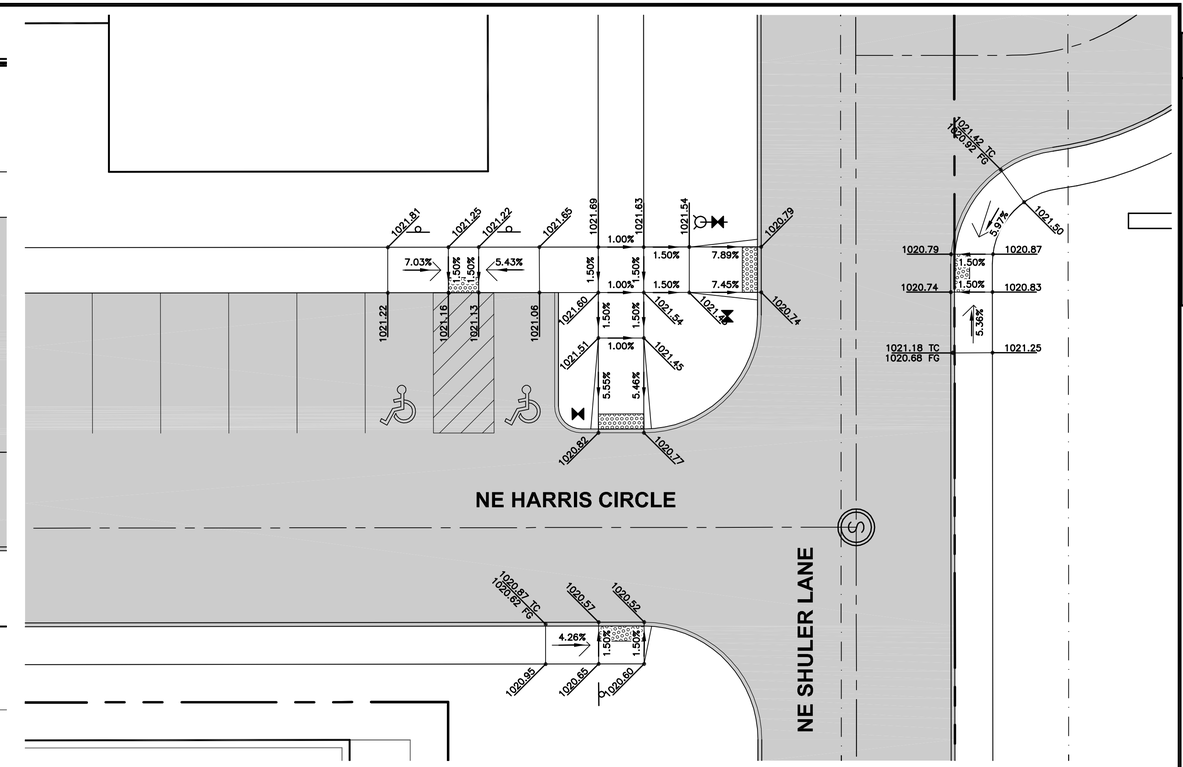

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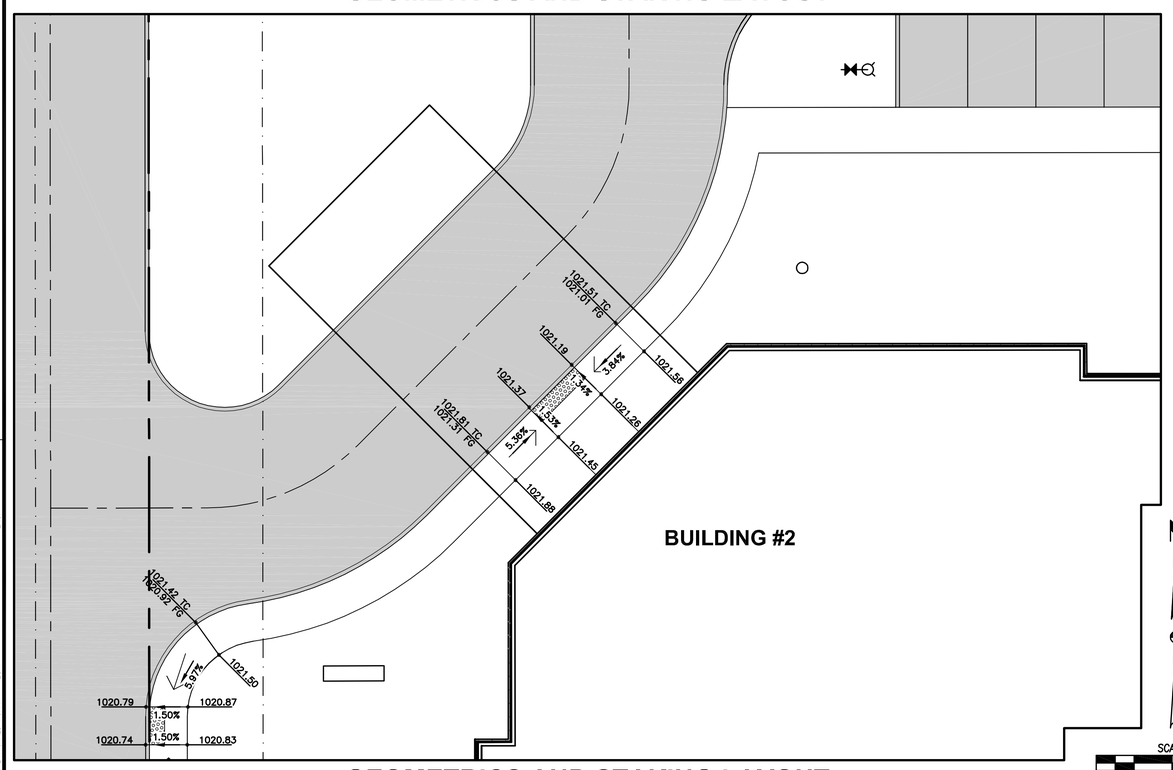

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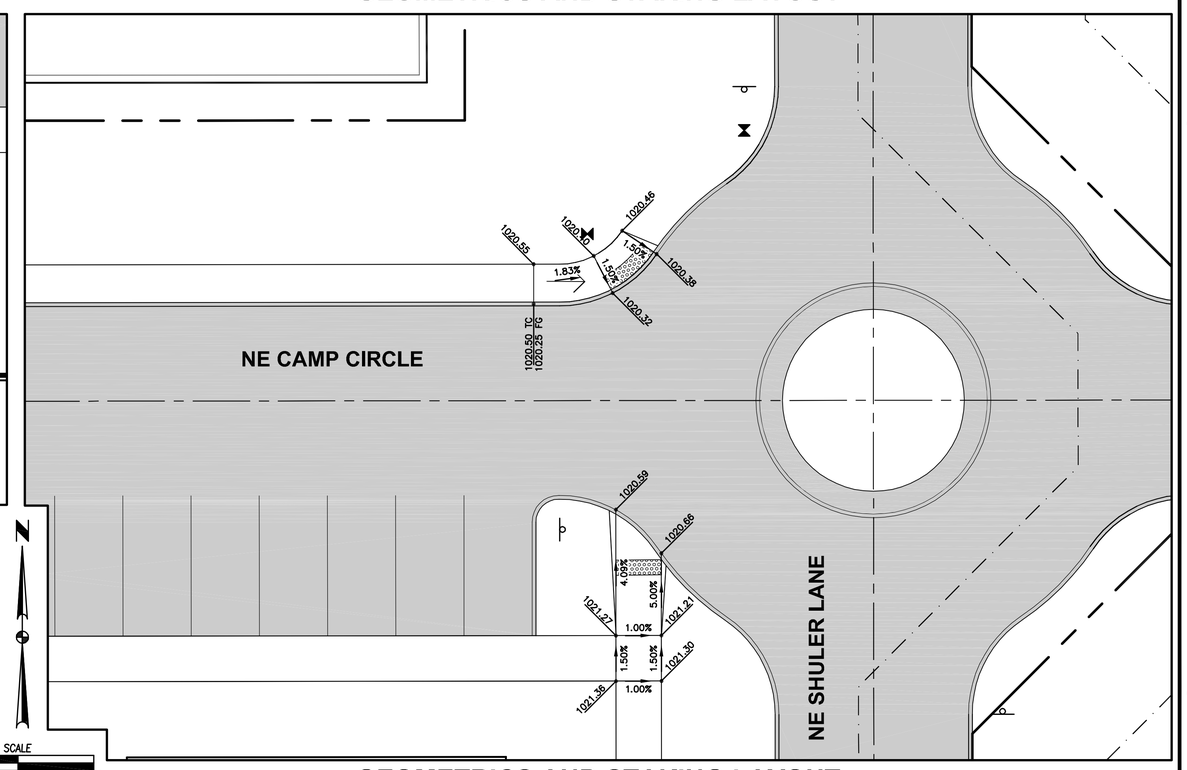

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CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

YARCO DEVELOPMENT
INTERSECTION DETAILS

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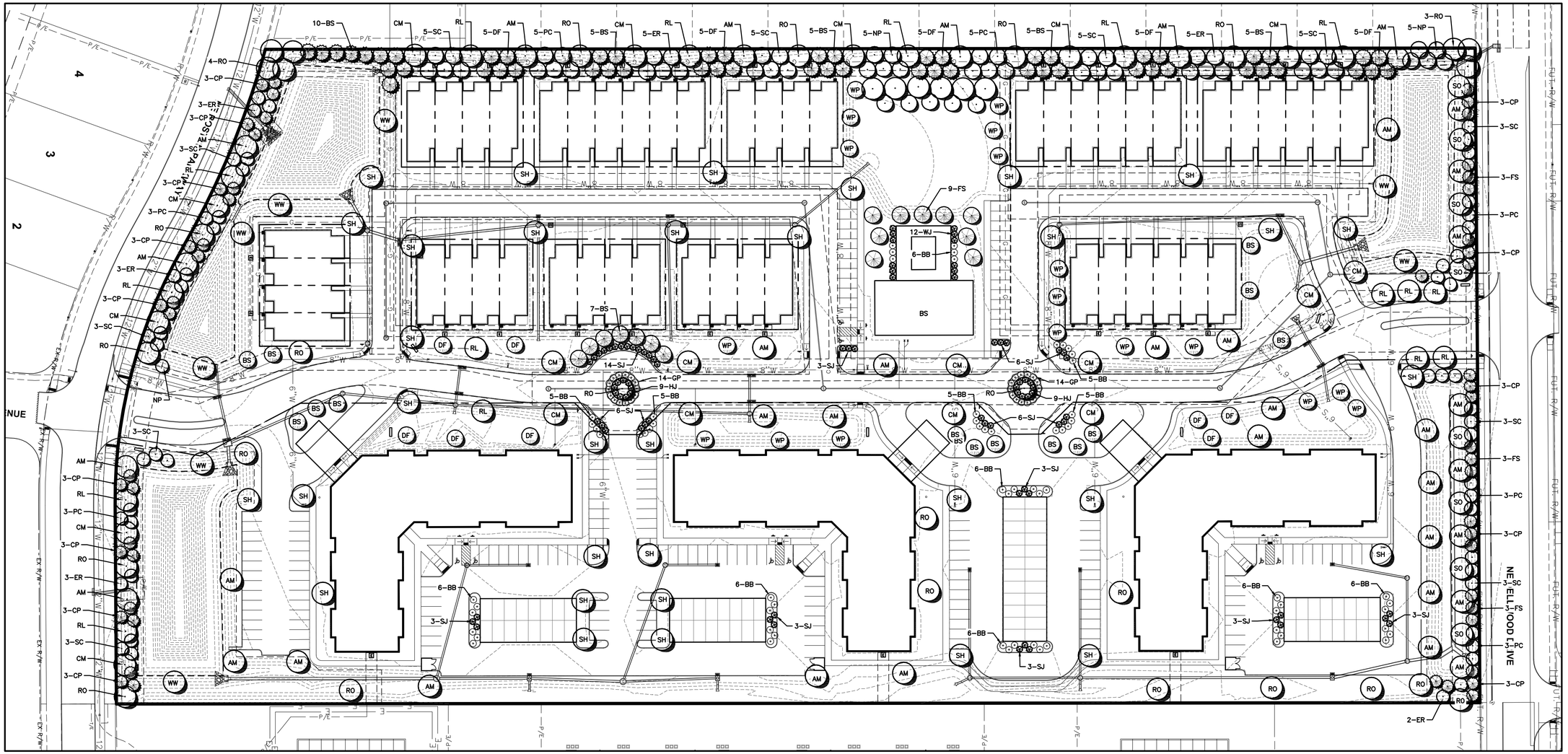


PLANT SCHEDULE

CODE	OVERSTORY TREES		SIZE	COND
AM	AUTUMN BLAZE MAPLE	ACER RUBRUM 'AUTUMN BLAZE'	8' HT	B&B
CM	CRIMSON KING MAPLE	ACER PLATANOIDES	8' HT	B&B
SH	SHADEMASTER HONEYLOCUST	GLEDITSIA TRICANTHAS INERMIS 'SHADEMASTER'	8' HT	B&B
RO	RED OAK	QUERCUS RUBRA	8' HT	B&B
BL	BOULEVARD LINDEN	TILIA AMERICANA 'BOULEVARD'	8' HT	B&B
RL	REDMOND LINDEN	TILIA AMERICANA 'REDMOND'	8' HT	B&B
RB	RIVER BIRCH	BETULA NIGRA (CLUMP)	8' HT	B&B
SO	SWAMP WHITE OAK	QUERCUS BICOLOR	8' HT	B&B
WW	WEEPING WILLOW	SALIX BABYLONICA	8' HT	B&B

CODE	ORNAMENTAL TREES		SIZE	COND
PC	PRAIRIE FIRE CRAB	MALUS X 'PRAIRE FIRE'	6' HT.	B&B
SC	SPRING SNOW CRAB	MALUS X 'SPRING SNOW'	6' HT.	B&B
ER	EASTERN REDBUD	CERCIS CANADENSIS	6' HT.	B&B
NP	NEWPORT PLUM	PRUNUS CERASIFERA 'NEWPORT'	6' HT.	B&B

CODE	EVERGREEN TREES		SIZE	COND
WP	EASTERN WHITE PINE	PINUS STROBUS	6' HT.	B&B
RS	COLORADO BLUE SPRUCE	PICEA PUNGENS	6' HT.	B&B
DF	DOUGLAS FIR	PSEUDOTSGA MENZIESII	6' HT.	B&B
CP	COLUMNAR WHITE PINE	PINUS STROBUS 'FASTIGIATA'	6' HT.	B&B
FS	FAT ALBERT SPRUCE	PICEA PUNGENS 'FAT ALBERT'	6' HT.	B&B

CODE	SHRUBS		SIZE	COND
BB	DWARF BURNING BUSH	EUOUNYMOUS ALATAS COMPACTUS	3 GAL.	CONT
SJ	SEA GREEN JUNIPER	JUNIPEROUS CHINENSIS 'SEA GREEN'	3 GAL.	CONT
HJ	HUGHES JUNIPER	JUNIPEROUS HORIZONTALIS HUGHES	3 GAL.	CONT
GP	GOLDEN VICARY PRIVET	LINGUSTRUM X VICARYI	3 GAL.	CONT
WJ	WELCH JUNIPER	JUNIPEROUS SCOPULORUM 'WELCHII'	3 GAL.	CONT

LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
3. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
4. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
5. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
6. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
7. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3".
8. ALL EDGING SHALL BE SPADE CUT EDGE.
9. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
10. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY. R.O.W. SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO ANY RAIN EVENT.
11. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
12. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER, IF REQUESTED, FOR APPROVAL.
13. THE PERMANENT OCCUPANCY OF EACH BUILDING WILL BE SUBJECT TO MEETING THE IDNR REQUIREMENTS FOR SITE ESTABLISHMENT.
14. SUBSTITUTIONS SHALL BE APPROVED BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.

TURF GRASS

SOD OR SEED, WITH SUDAS TYPE 1 PERMANENT LAWN MIXTURE AND HYDRO-MULCH, ALL DISTURBED AREAS.

25' BUFFER REQUIREMENT (WEST)

1.5 OVERSTORY TREE, 2.5 EVERGREEN TREES
AND 2.5 ORNAMENTAL TREES PER 50 LF

1106 LF

OVERSTORY TREES REQUIRED =33
EVERGREEN TREES REQUIRED =55
ORNAMENTAL TREES REQUIRED =55

OVERSTORY TREES PROVIDED =33
EVERGREEN TREES PROVIDED =55
ORNAMENTAL TREES PROVIDED =55

25' BUFFER REQUIREMENT (SOUTH)

1.5 OVERSTORY TREE, 2.5 EVERGREEN TREES
AND 2.5 ORNAMENTAL TREES PER 50 LF

540 LF (MINUS 25' WEST BUFFER AND PRIVATE STREET)

OVERSTORY TREES REQUIRED =16
EVERGREEN TREES REQUIRED =27
ORNAMENTAL TREES REQUIRED =27

OVERSTORY TREES PROVIDED =16
EVERGREEN TREES PROVIDED =27
ORNAMENTAL TREES PROVIDED =27

25' BUFFER REQUIREMENT (NORTH)

1.5 OVERSTORY TREE, 2.5 EVERGREEN TREES
AND 2.5 ORNAMENTAL TREES PER 50 LF

525 LF (MINUS 25' WEST BUFFER AND PRIVATE STREET)

OVERSTORY TREES REQUIRED =16
EVERGREEN TREES REQUIRED =27
ORNAMENTAL TREES REQUIRED =27

OVERSTORY TREES PROVIDED =16
EVERGREEN TREES PROVIDED =27
ORNAMENTAL TREES PROVIDED =27

APARTMENT LANDSCAPE REQUIREMENTS

LOT AREA = 339,534 SF
OPEN SPACE REQUIRED (20%) = 67,907 SF

1 TREE PER 1,000 SF OR REQUIRED OPEN SPACE.
1 SHRUB PER 1,000 SF OR REQUIRED OPEN SPACE.

MINIMUM 50% = OVERSTORY
MINIMUM 25% = EVERGREEN

OVERSTORY TREES = 8' MIN. HEIGHT
EVERGREEN TREES = 6' MIN. HEIGHT
ORNAMENTAL TREES = 6' MIN. HEIGHT

TREES REQUIRED: 68
TREES PROVIDED: 69

SHRUBS REQUIRED: 68
SHRUBS PROVIDED: 86

TOWNHOME LANDSCAPE REQUIREMENTS

LOT AREA = 382,365 SF
OPEN SPACE REQUIRED (20%) = 76,476 SF

1 TREE PER 1,000 SF OR REQUIRED OPEN SPACE.
1 SHRUB PER 1,000 SF OR REQUIRED OPEN SPACE.

MINIMUM 50% = OVERSTORY
MINIMUM 25% = EVERGREEN

OVERSTORY TREES = 8' MIN. HEIGHT
EVERGREEN TREES = 6' MIN. HEIGHT
ORNAMENTAL TREES = 6' MIN. HEIGHT

TREES REQUIRED: 77
TREES PROVIDED: 79

SHRUBS REQUIRED: 77
SHRUBS PROVIDED: 92

SCALE
0' 25' 50' 100'

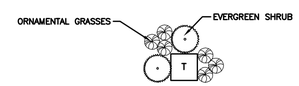
LEGEND

DECIDUOUS OVERSTORY TREE

CONIFEROUS EVERGREEN TREE

ORNAMENTAL TREE

SHRUB



ELECTRICAL TRANSFORMER SCREENING DETAIL
ALL GROUND MOUNTED MECHANICAL UNITS TO BE ADEQUATELY SCREENED FROM PUBLIC VIEW.

LOCATIONS AND QUANTITY OF ELECTRICAL UNITS SHALL BE DETERMINED BY UTILITY PROVIDER.

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YARCO DEVELOPMENT
LANDSCAPE PLAN

WAUKEE, IOWA

25/25
1606.300

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LAST MODIFIED: 11/1/16 PLOTTED: 11/1/2016 3:07 PM
PLOTTED BY: JARED MURRAY TECH:
COMMENTS:
ENG: