Soppe, Tom

From: Amy Berger [BergerA@wlwv.k12.or.us]
Sent: Monday, May 17, 2010 2:37 PM
To: Keith S. Liden; Soppe, Tom
Cc: Patrick Tortora; Remo Douglas; SteveW@dowa.com; Tim Woodley
Subject: Re: FW: WLHS Baseball Field - Design Review Request

I called John today and made the payment.

Amy

>>> "Liden, Keith S." <Liden@pbworld.com> 5/17/2010 1:43 PM >>>
Tom,

The district was given a refund check for this application, but as we agreed last week you would keep the application. Now that the director has approved our request to be reviewed as a Class I Design Review, you have all the material, and the district simply needs to pay the fee again. Shall I have the district call John Nomie to make the $850 payment? Thanks.

Keith Liden, AICP
Lead Planner

PlaceMaking
Parsons Brinckerhoff
400 SW 6th Avenue, Suite 802, Portland, OR 97204
Direct: 503-478-2348 | Office: 503-274-8772
www.pbworld.com/pbplacemaking

From: Sonnen, John [mailto:jsonnen@westlinnoregon.gov]
Sent: Monday, May 17, 2010 1:34 PM
To: Liden, Keith S.
Subject: FW: WLHS Baseball Field - Design Review Request
Importance: Low

City of West Linn
John Sonnen
jsonnen@westlinnoregon.gov
Planning Director
22500 Salamo Rd.
West Linn, OR, 97068
P: (503) 723-2524
F: (503) 656-4106
Web: westlinnoregon.gov

From: Sonnen, John
Sent: Monday, May 17, 2010 1:21 PM
To: 'SMTP:LIDEN@PBWORLD.COM'
Cc: Soppe, Tom

Nomie, John

From: Soppe, Tom
Sent: Monday, May 17, 2010 1:48 PM
To: 'Liden, Keith S.'
Cc: Nomie, John; Zak, Teresa
Subject: RE: WLHS Baseball Field - Design Review Request

Yes, do that and it will be given a new file number and a new 30-day completeness check timeframe as a new application.

Tom Soppe
Associate Planner
City of West Linn
22500 Salamo Road
West Linn, OR 97068
ph. (503) 742-8660
fax (503) 656-4106
tsoppe@westlinnoregon.gov

Tom Soppe, Associate Planner
Planning, #1521

From: Liden, Keith S. [mailto:Liden@pbworld.com]
Sent: Monday, May 17, 2010 1:44 PM
To: Soppe, Tom
Cc: Amy Berger; Tim Woodley; Remo Douglas; SteveW@dowa.com; Patrick Tortora
Subject: [BULK] FW: WLHS Baseball Field - Design Review Request
Importance: Low

Tom,

The district was given a refund check for this application, but as we agreed last week you would keep the application. Now that the director has approved our request to be reviewed as a Class I Design Review, you have all the material, and the district simply needs to pay the fee again. Shall I have the district call John Nomie to make the $850 payment? Thanks.

Keith Liden, AICP
Lead Planner

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From: Sonnen, John [mailto:jsonnen@westlinnoregon.gov]
Sent: Monday, May 17, 2010 1:34 PM
To: Liden, Keith S.

Subject: FW: WLHS Baseball Field - Design Review Request
Importance: Low

John Sonnen
jsonnen@westlinnoregon.gov
Planning Director
22500 Salamo Rd.
West Linn, OR, 97068
P: (503) 723-2524
F: (503) 656-4106
Web: westlinnoregon.gov

From: Sonnen, John
Sent: Monday, May 17, 2010 1:21 PM
To: 'SMTP:LIDEN@PBWORLD.COM'
Cc: Soppe, Tom
Subject: FW: WLHS Baseball Field - Design Review Request
Importance: Low

Hi Keith, based on the explanation in your letter dated May 12, we will process the proposed minor improvements in and around the West Linn High School baseball field as a Class I Design Review application.
Best regards,
John

From: Soppe, Tom [mailto:tsoppe@westlinnoregon.gov]
Sent: Thursday, May 13, 2010 8:30 AM
To: Sonnen, John
Subject: FW: WLHS Baseball Field - Design Review Request
Importance: Low

From: Liden, Keith S.[SMTP:LIDEN@PBWORLD.COM]
Sent: Thursday, May 13, 2010 7:26:31 AM
To: Tim Woodley
Cc: SteveW@dowa.com; Mark Wharry; Remo Douglas; Soppe, Tom; Karina Ruiz; Norm Dull
Subject: [BULK] WLHS Baseball Field - Design Review Request
Importance: Low
Auto forwarded by a Rule
Tim,

The attached request to process the WLHS baseball field improvements as a Class I Design Review was mailed last night to John Sonnen.

Keith Liden, AICP
Lead Planner

PlaceMaking
Parsons Brinckerhoff

400 SW 6th Avenue, Suite 802, Portland, OR 97204
Direct: 503-478-2348 | Office: 503-274-8772
www.pbworld.com/pbplacemaking

Tom Soppe, Associate Planner
Planning, #1521

West Linn Sustainability Please consider the impact on the environment before printing a paper copy of this email.

Public Records Law Disclosure This e-mail is subject to the State Retention Schedule and may be made available to the public.

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Parsons Brinckerhoff
400 SW Sixth Avenue
Suite 802
Portland, OR 97204-1628
503-274-8772
Fax: 503-274-1412

May 12, 2010

John Sonnen, Planning Director
West Linn Planning Department
22500 Salamo Road
West Linn, OR 97068

RE: DR-10-05 West Linn High School Baseball Field

Dear Mr. Sonnen,

On April 29th the West Linn-Wilsonville School District submitted a Class I Design Review application to make a variety of minor improvements in and around the West Linn High School baseball field. On May 4th, the application was rejected by Tom Soppe for two reasons:

1. The expansion of the track equipment shed with a 620 square-foot addition for the ADA restroom and concession stand would exceed the 5% threshold for a Class I Design Review (CDC 55.020 7).
2. A Water Resource Area permit is required because a section of 12-inch storm line is proposed (at the city's request) to be replaced with a 24-inch line, and a portion of the proposed sidewalk improvements between the track and baseball field would be within a 100-foot water resource area buffer.

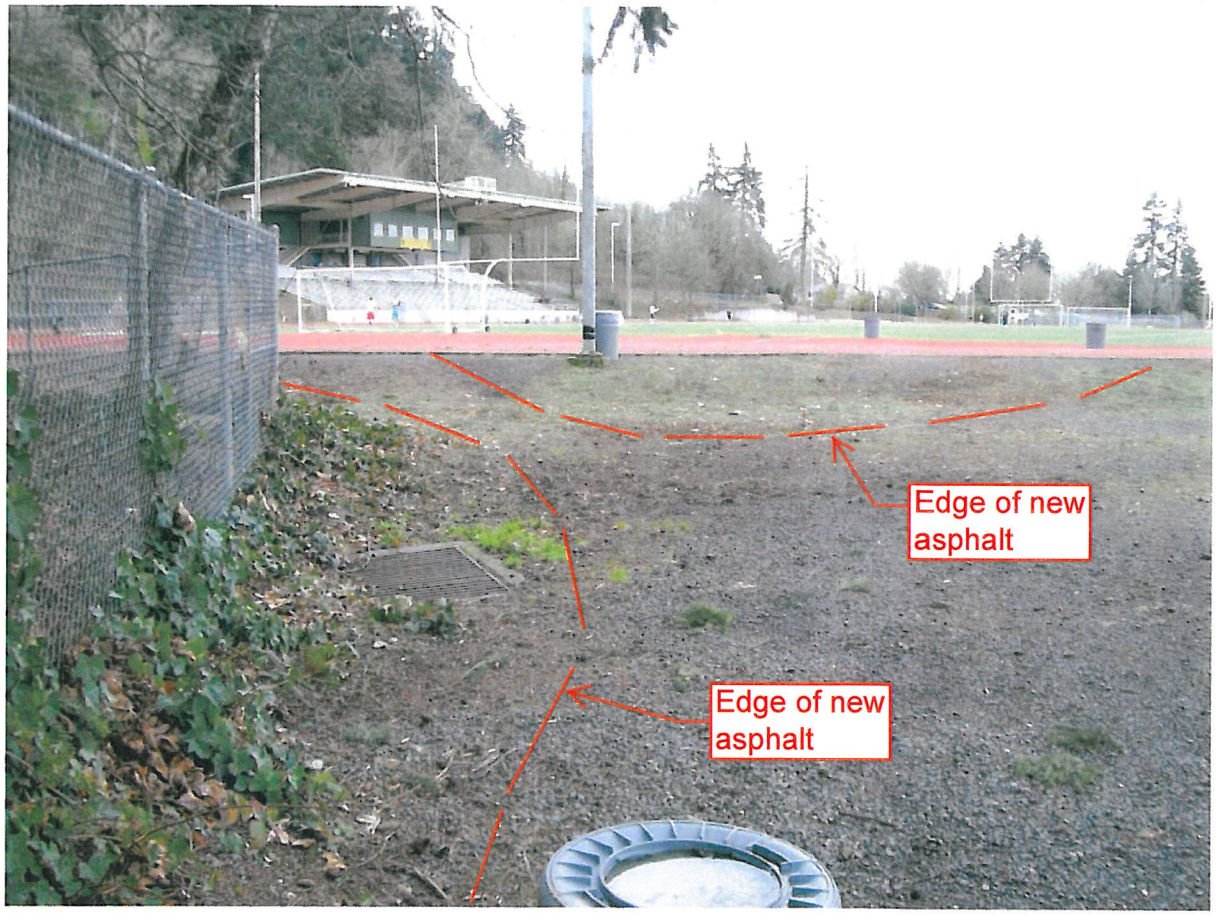
On behalf of the West Linn-Wilsonville School District, I request that the application be accepted for completeness review for Class I Design Review based on the following:

Design Review

Section 55.020 17. states that other land uses and activities may be considered under the Class I Design Review process "if the Planning Director makes written findings that the activity/use will not increase off-site impacts and is consistent with the type and/or scale of activities/uses listed above."

The proposed 620 square-foot building expansion for an ADA restroom and small concession stand is a very minor change in land use by any measure. Although this would result in more than a 5% expansion of the existing equipment storage building, it is inconsequential when considering the entire high school facility of which it is a part. In this context, it represents less than a 1% expansion, would generate no additional vehicular traffic, would not create additional noise associated with sports activities, and would not be visible from surrounding properties. Processing the application using a Class I Design Review would be comparable with other activities and uses that are subject to this process.

Existing gravel area to be overlaid with asphalt. (west portion)



Existing gravel area to be overlaid with asphalt. (east portion) new concessions is adjacent to the existing green building.

Water Resource Area

I have attached an exhibit that shows the location of the proposed storm line and sidewalk improvements and their relationship to the 100-foot water resource buffer area. The proposed sidewalk (shaded area on the right side of the drawing near the baseball field) is outside of the water resource area. In addition, it is presently surfaced with gravel (see attached photos), and the sidewalk is intended to provide improved pedestrian and ADA access.

The storm drainage facility maintenance and improvement is within the 100-foot buffer. However, a minor improvement such as this to a properly established utility should qualify for an exception under 32.020 D. 3. This section states: "Routine repair and maintenance of legally established structures, utilities, roads, and manmade water control facilities such as constructed ponds or lakes, wastewater facilities, and stormwater treatment facilities that do not alter the location or footprint of the structure, utility, or road."

The proposed storm drainage facility work is very minor and is consistent with the above exception provision because: 1) it is routine; 2) the facility was previously permitted and approved by the city; 3) it is a utility; and 4) other than having a slightly larger pipe underground, it will be located in its present alignment.

Based on the above, the district requests that the application for the WLHS baseball field improvements be accepted for completeness review as a Class I Design Review application. Please feel free to contact me if you have any questions. Thank you for your consideration.

Sincerely,

Keith S. Liden, AICP

cc: Tim Woodley, WLWV School District
Remo Douglas, WLWV School District
Steve Winkle, DOWA
Pat Tortora, Winzler & Kelly
Tom Soppe

WEST LINN HIGH SCHOOL
Class I Design Review
April 28, 2010

APPLICATION SUMMARY

For Class I Design Review approval to replace or remodel portions of existing support facilities adjacent to the baseball field at West Linn High School located on a 42-acre site.

GENERAL INFORMATION

Location

5464 West "A" Street (2S 2E Section 30, Tax Lot 800 and Section 30CD Tax Lots 4500, 4501, 4502, and 4502E1). Its location is shown in Figure 1.

Comprehensive Plan and Zoning Designations

The Comprehensive Plan designations are Low Density for the northern portion of the property and Commercial for the southern section.

Consistent with the Comprehensive Plan, the property is zoned Single Family Residential Detached (R10) and Office Business Center (OBC).

Applicant and Owner

Tim Woodley, Director of Operations
West Linn-Wilsonville School District
P. O. Box 35
West Linn, OR 97068
Phone: 503-673-7976
Fax: 503-638-9360
E-mail: woodleyt@wlwv.k12.or.us

Applicant's Representatives

Keith Liden, AICP
Parsons Brinckerhoff
400 S. W. 6th Avenue, Suite 802
Portland, OR 97204
Phone: 503-478-2348
Fax: 503-274-1412
E-mail: liden@pbworld.com

Steve Winkle, AIA
Dull Olson Weekes Architects
907 S. W. Stark Street
Portland, OR 97205
Phone: 226-6950
Fax: 273-9192
E-mail: stevew@dowa.com

Attachments and Plan Sheets

Cover Sheet
C0 Existing Conditions
C1 Existing Conditions and Demolition
C2 Site Plan
C3 Grading and Erosion Control Plan
C4 Utility Plan
C5 Notes and Details
C6 Details
A1.00 Overall Site Plan
A1.01 Site Plan
A2.00 Concession Plans
A2.01 Announcer Booth Plans
A2.02 Seating Plan
A3.00 Elevation
A3.01 Section
A3.02 Section/Elevation Details
A3.03 Section/Elevation Details
A4.00 Interior Elevation
S0.2 General Structural Notes
S1.1 Site Plan and Framing Plans
S2.1 Concrete Details
S3.1 Wood Details
M001 Symbols, Legends and Abbreviations - Mechanical
M201 Floor Plans – Mechanical
M601 Details - Mechanical
E001 Symbols, Legends and Abbreviations - Electrical
E010 Site Plans-Demolition Electrical
E020 Site Plan – Electrical
E201 Floor Plans – Electrical
E501 One-Line Diagrams - Electrical
E601 Details and Schedules – Electrical

Note: The applicant is requesting a waiver of the submittal requirement to provide topographic information for the entire project property (CDC 55.120 A). In this case, no topographic survey information is available for the undeveloped portion of the school district property to the west of the football and baseball fields. In addition, the improvements are focused solely around the baseball field. Because no construction activity of any kind is proposed outside of this area, the district requests a waiver from this submittal requirement and to provide this information for the project area only.

A waiver to the acoustic study requirement (CDC 55.120 M) is requested. The remodeling and renovation work will not expand the school capacity or intensity of use and therefore, the noise generated from the site will not change.

Figure 1: Aerial Photo

Source: Google

BACKGROUND INFORMATION

Site Description

The site is developed with West Linn High School, including the school buildings, driveways, parking, and athletic fields as shown in Figure 1. The entire site is approximately 42 acres, including the wooded portion of the property, which is west of the school. A football stadium, baseball field, and tennis courts are located on the southwest side of the property. There are no known historic or archaeological resources on the property.

Surrounding Area Description

The zoning designations and current land use of the surrounding area are summarized in Table 1.

Table 1
Land Use Summary

Properties in the Vicinity	*Zone Designation*	*Land Use*
Subject Property 2S 2E 30, TL 800 and 30CD, TL 4500, 4501 4502 and 4502E1(42 acre school site owned by school district	R10 and OBC (southern parking lot)	High School building, ancillary facilities, and parking
Surrounding Properties Northwest	R10	Single family residences and Wilderness Park
East/Northeast	R5 and R4.5	Single family residences
South	R10	Camassia Natural Area and I-205
West	R10	Single family residences and Wilderness Park

Primary access to the school is provided by West "A" Street, which runs along the eastern side of the site. One driveway exists on the south end of the site, providing access to the southern parking lot, tennis courts, and baseball field. A pick-up and drop-off driveway is located in front of the school. A secondary driveway on Skyline Drive provides access to the rear of the northern section of the school and the football stadium.

BASEBALL FIELD IMPROVEMENTS

The improvements to baseball field include:

- Eliminating overhead power lines, transformers, and power poles, while retaining the existing field lights and poles.
- Installing replacement underground electrical service.
- Expanding the existing track equipment shed to provide an ADA restroom and concession stand.
- Replacing the existing bleachers with new bleachers that will continue to seat approximately 300 people.
- Providing access from the upper track level to the new ADA restroom, concessions, and bleachers.
- Providing a new screen to prevent foul balls from landing in the adjacent park to

the west.

- Providing a new backstop screen to protect the spectators in the bleacher area.
- Modifying the existing concrete wall at the backstop to start the first row of bleachers I 4 feet above the field instead of 10 feet this brings the top of the seating area level with the track area.
- Installing the announcers booth behind the seating area.
- Improving the pathway between the southern parking lot and the baseball field to be ADA accessible.
- Installation of one planter and two bioswales, designed to the City of Portland Storm Water Management Manual.

DESIGN REVIEW CRITERIA

The Class I Design Review requirements include compliance with Chapter 55 Design Review. Section 55.090 contains the applicable approval standards for a Class I Design Review. Section 55.090(A) refers to specific portions of Section 55.100 that apply to Class I Design Review applications. The applicable portions of Section 55.100 are addressed below, including CDC Sections 55.100 J. and K. identified by the city staff.

Section 55.090(B) states that adequate public facilities must be available. This criterion is satisfied because the school is currently served by a full range of public utilities and streets. The remaining criteria are addressed below.

55.090 A. The provisions of the following sections shall be met:

1. Section 55.100 B. (1-4) Relationship to the Natural Physical Environment

Section 55.100 B. 1. and 2. Do not apply because no significant or heritage trees will be affected. The project involves improvements to portions of the high school property that are presently developed. There are no trees within the area to be improved.

Section 55.100 B. 3. is not relevant because no grading is proposed. The existing grades on the site will remain.

Section 55.100 B. 4. is satisfied because the property is geologically stable. Furthermore, the construction proposed is within an area that is currently developed.

2. Section 55.100 B. (5-6) Architecture

Section 55.100 B. 5. is satisfied because the modest expansion of the track shed building and the new announcer's booth comply with all of the building height and setback requirements of the R 10 Zone. The buildings will be well under the 35-foot height limit and they will be located well beyond the minimum setback requirements of the R-10 Zone.

Section 55.100 B. 6. is met based on the findings below:

a. The modest buildings proposed either represent replacement improvements or an expansion for restrooms and a small concession stand. The fencing, screens, walkways, and lighting are presently provided and the replacement facilities will continue to be consistent with the sports field function. Natural

exterior colors will be used, and the improvements will not be visible from surrounding properties.

b/c. These subsections pertaining to building scale and transition is not relevant because the buildings are very small and well removed from any other buildings in the area. The high school building and auditorium, which are over 100 feet to the east are the closest buildings in the area.

d. As noted above, the proposed site is large enough to displace any contrasting architectural styles that the proposed building might add to the surrounding area.

e. The proposed improvements will enhance the human scale of the baseball field spectator area by providing a more comfortable walking environment, improved safety, restrooms, and concessions.

f. For security reasons, the restroom, concession stand, and announcer's booth will not be very transparent with multiple openings and windows. However, these buildings will be open when spectators are present. Because of their small size, the site will continue to be transparent and easily surveyed from many different vantage points.

g. The buildings will avoid expansive blank wall elevations.

h. There will not be any additional weather protection compared to the current improvements. Spectators expect to come prepared for the varied climatic conditions of the Northwest.

i. As noted above the improvements are designed to enhance the comfort, safety, and enjoyment of the spectators.

55.090 A. (3) In addition, the provisions of the following sections shall be met:

3. Section 55.100 J. Crime Prevention

Access, pedestrian circulation, and lighting will be provided and arranged to maximize spectator safety. The baseball field and adjoining sports facilities will continue to be secured by the district to minimize the potential for crime and vandalism on the school grounds and the surrounding neighborhood.

4. Section 55.100 K. ADA Accessibility

City code criteria and ADA requirements will be satisfied during the final building and facility design. The restroom will be ADA accessible, and the existing gravel pathway from the southern parking lot will be improved to be ADA accessible

CONCLUSION

The proposed baseball field improvements satisfy all of the relevant criteria as demonstrated above.

WINZLER & KELLY
15575 SW Sequoia Pkwy, Ste. 140
Portland, OR 97224-7233

Date: 4-1-10

MEMORANDUM

Project No.: 10884-09007 Project Name: WLHS Baseball Seating

To: Khoi Le, P.E., City of West Linn

From: Patrick Tortora, P.E.

Copies To: M. Wharry, P.E.

Subject: Preliminary Stormwater Drainage Design Memorandum

This memorandum is to address the proposed storm drainage improvement related to the proposed pedestrian infrastructure and seating upgrades at the WLHS baseball field.

Project Description:
Improvements to pedestrian infrastructure and spectator seating are proposed at the baseball field. The proposed improvements include a new hardscape path from the existing parking lot to the seating area, a new built-in spectator seating area, new hardscape pedestrian plaza, and new bathroom facilities. See Site Plan.

New impervious area summary (approximate): 7,560 sf

Existing Conditions:
The existing site includes a gravel path and spectator seating area with portable metal bleachers. There is an existing storm pipe network that consists of a series of catch basins and storm pipe that collect and convey runoff from the site as well as a large off-site tributary area of about 83 acres. The calculated peak flows from the off-site tributary area are summarized below:

Design Storm Event	Peak Flow
2-Year	4.8 cfs
5-Year	8.1 cfs
10-Year	12.3 cfs
25-Year	16.8 cfs
100-Year	21.7 cfs

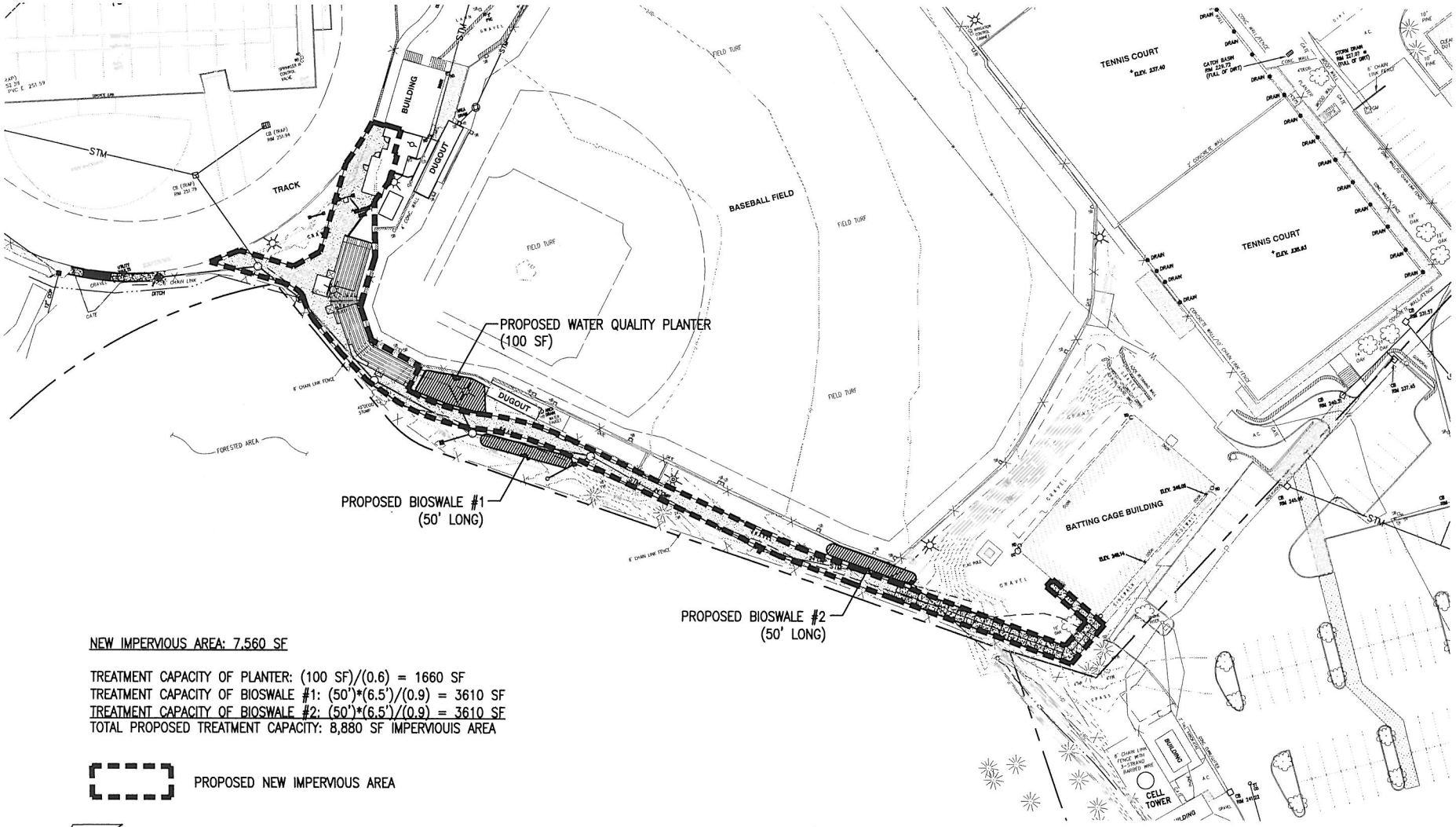
The pipe network consists mostly of 24" pipe, although there is a 12" section of pipe at the upstream end of the system that restricts the amount of flow that the system can accept. It was determined that the 24" pipe has the capacity to convey the 10-year peak flow.

The baseball field area is located at the downstream end of the pipe network, just upstream of its point of discharge into a drainage that ultimately outlets into the Willamette River.

Proposed Storm System:
The proposed improvements to the storm system include upsizing the existing 12" section of pipe with 24" pipe. A portion of the storm pipe network will be relocated to avoid the new spectator seating.

Detention is not proposed for the new impervious area. An analysis showed that the proposed impervious area will increase the peak 25-year flow leaving the site by about 0.03 cfs from its existing condition. This increase is considered negligible compared to the off-site flow that is routed through the system (16.8 cfs for 25-year design storm).

Stormwater treatment is planned to remove pollutants from the proposed impervious area. The proposed stormwater quality features include a planter to accept runoff from the new bleacher area, and two bioswales to accept runoff from the proposed pedestrian hardscape areas. These features have been designed using the City of Portland Stormwater Management Manual Simplified Approach – see attached Drainage Map.



NEW IMPERVIOUS AREA: 7,560 SF

TREATMENT CAPACITY OF PLANTER: (100 SF)/(0.6) = 1660 SF
TREATMENT CAPACITY OF BIOSWALE #1: (50')*(6.5')/(0.9) = 3610 SF
TREATMENT CAPACITY OF BIOSWALE #2: (50')*(6.5')/(0.9) = 3610 SF
TOTAL PROPOSED TREATMENT CAPACITY: 8,880 SF IMPERVIOUS AREA

PROPOSED NEW IMPERVIOUS AREA

N

1" = 50'-0"

50' 0 50' 100' 150'

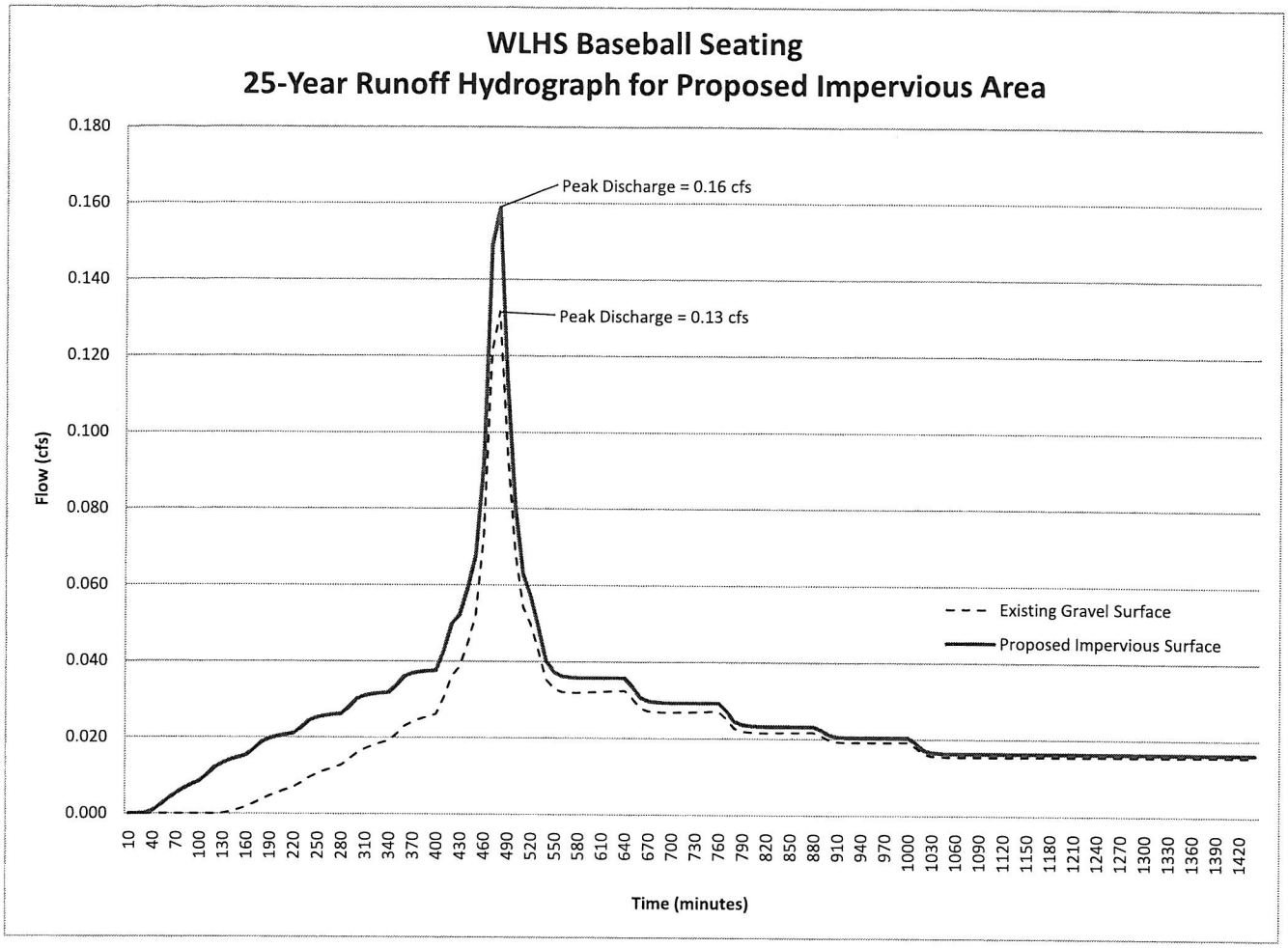
WINZLER & KELLY
15575 SW SEQUOIA PKWY, SUITE 140
PORTLAND, OR 97224
PH: 503-226-3921 FAX: 503-226-3926

PROJECT: WLHS BASEBALL SEATING

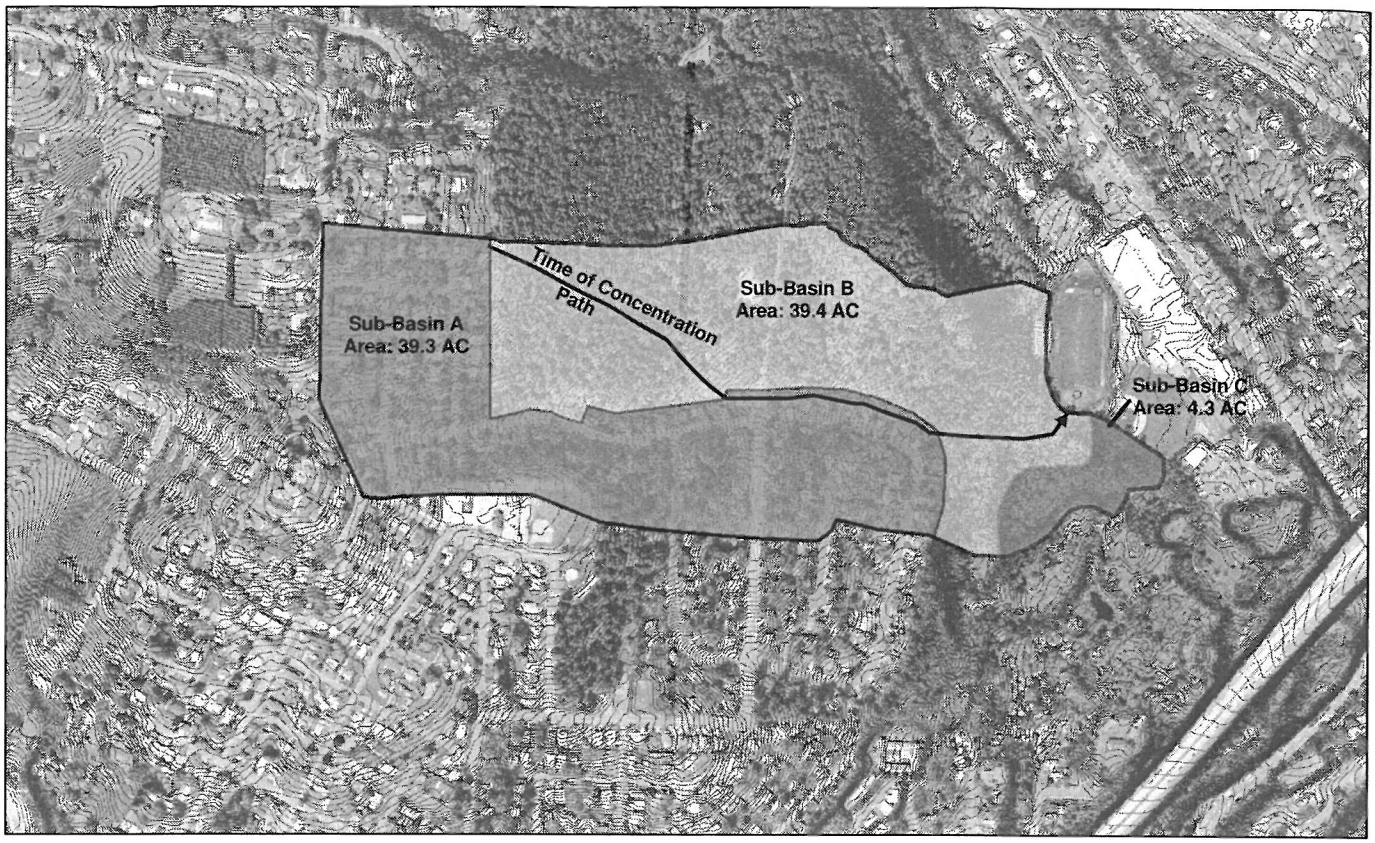
TITLE: DRAINAGE MAP - PROPOSED CONDITIONS

DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
–	–		3/31/10	10884-09007	FIGURE 1

O:\10884 – DOWA (DULL OLSON WEEKES ARCHITECTS)\10884-09007 DOWA WLWSD WEST LINN HS\CAD\EXHIBITS\DRAINAGEMAP.DWG Seth Stevens 4/27/2010 4:19 PM


WLHS Baseball Seating
25-Year Runoff Hydrograph for Proposed Impervious Area
Peak Discharge = 0.16 cfs
Peak Discharge = 0.13 cfs
Existing Gravel Surface
Proposed Impervious Surface
Flow (cfs)
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
10 40 70 100 130 160 190 220 250 280 310 340 370 400 430 460 490 520 550 580 610 640 670 700 730 760 790 820 850 880 910 940 970 1000 1030 1060 1090 1120 1150 1180 1210 1240 1270 1300 1330 1360 1390 1420
Time (minutes)

Watershed for WLHS Storm Pipe



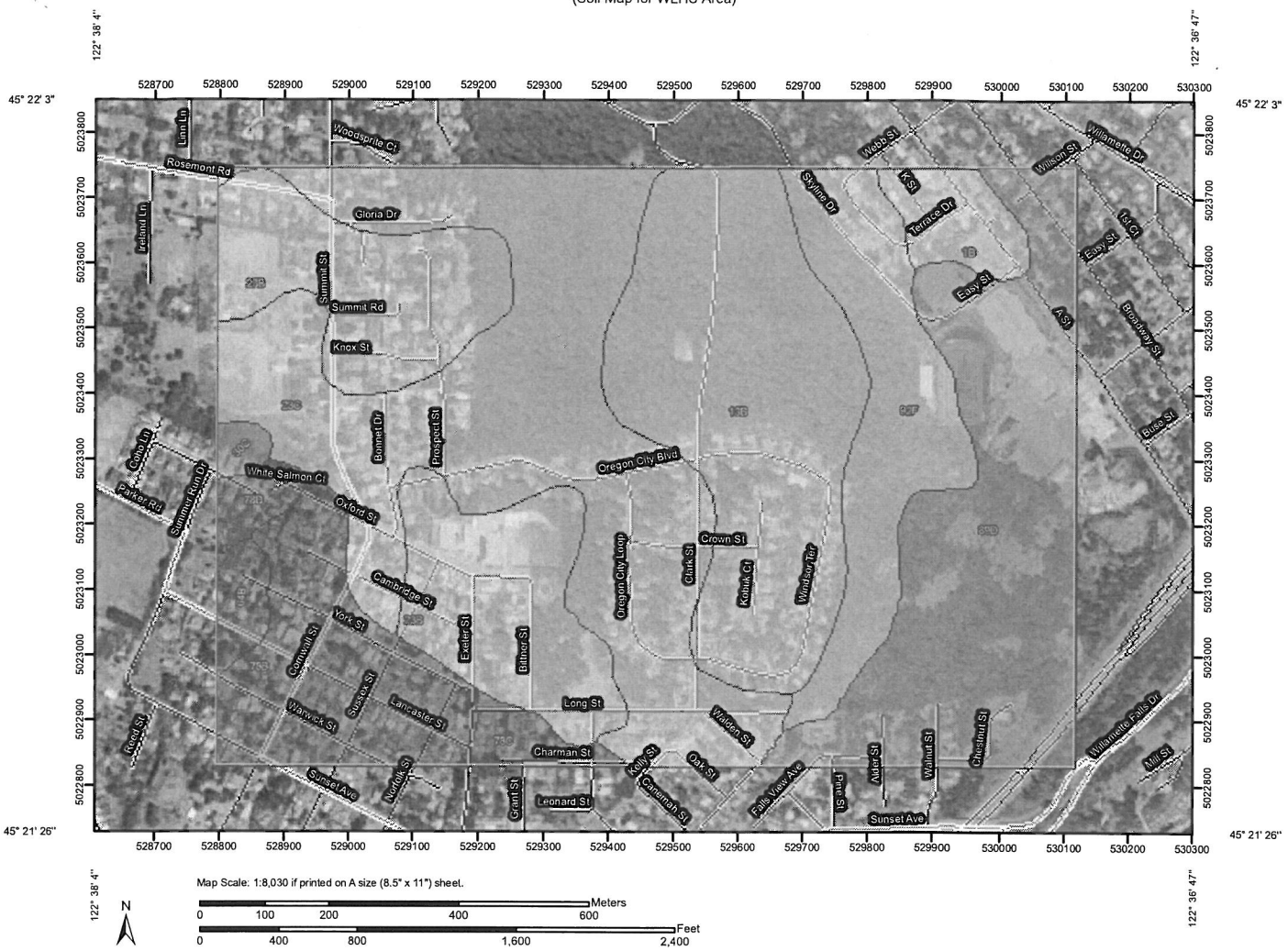
N

0 237.5 475 950 Feet

January 22, 2010

Data Source: Topograpy - City of West Linn 2 ft. Contours (2004) Received January 22, 2010

WINZLER & KELLY


122° 38' 4"
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45° 22' 3"
45° 21' 26"
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Limit Ln
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Willamette Dr
Wilson St
Skyline Dr
K St
Terrace Dr
Iceland Ln
Gloria Dr
Summit St
Summit Rd
Knox St
Easy St
Iona Ct
A St
Broadway St
Bonnet Dr
Prospect St
Oregon City Blvd
Bluff St
Cohor Ln
White Salmon Ct
Parker Rd
Sunnyview Rd Dr
Oxford St
Crown St
Clark St
Oregon City Loop
Kodiak Ct
Windsor Ter
Cambridge St
York St
Cornwall St
Exeter St
Bittner St
Sussex St
Lancaster St
Warwick St
Long St
Walden St
Reed St
Charman St
Kelly St
Oak St
Chestnut St
Willamette Falls Dr
Mill St
Sunset Ave
Norfolk St
Grant St
Leonard St
Cameron St
Falls View Ave
Pine St
Alder St
Walnut St
Map Scale: 1:8,030 if printed on A size (8.5" x 11") sheet.
N
Meters
0 100 200 400 600
Feet
0 400 800 1,600 2,400

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:8,030 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clackamas County Area, Oregon
Survey Area Data: Version 5, Aug 12, 2009

Date(s) aerial images were photographed: 8/3/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

WLHS Drainage

2009 West Linn GIS Map Disclaimer, click here

WestLinnBaseMap_ex911v1

West Linn GIS Map Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

WLHS Drainage 2

2009 West Linn GIS Map Disclaimer, click here

WestLinnBaseMap_ex911v1

West Linn GIS Map Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Table 2-2a Runoff curve numbers for urban areas [1]

Cover description		Curve numbers for hydrologic soil group			
Cover type and hydrologic condition	Average percent impervious area [2]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

[1] Average runoff condition, and $I_a = 0.2S$.

[2] The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

[3] CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

[4] Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

[5] Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Table 2-2c Runoff curve numbers for other agricultural lands [1]

Cover description		Curve numbers for hydrologic soil group			
Cover type	Hydrologic condition	A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. [2]	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.	—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. [3]	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 [4]	48	65	73
Woods—grass combination (orchard or tree farm). [5]	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods. [6]	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 [4]	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.	—	59	74	82	86

1 Average runoff condition, and $I_a = 0.2S$.

2 *Poor:* <50%) ground cover or heavily grazed with no mulch.
Fair: 50 to 75% ground cover and not heavily grazed.
Good: > 75% ground cover and lightly or only occasionally grazed.

3 *Poor:* <50% ground cover.
Fair: 50 to 75% ground cover.
Good: >75% ground cover.

4 Actual curve number is less than 30; use CN = 30 for runoff computations.

5 CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

6 *Poor:* Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.
Fair: Woods are grazed but not burned, and some forest litter covers the soil.
Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Full Flow Capacity for 24" CMP Pipe, S=1%

Project Description

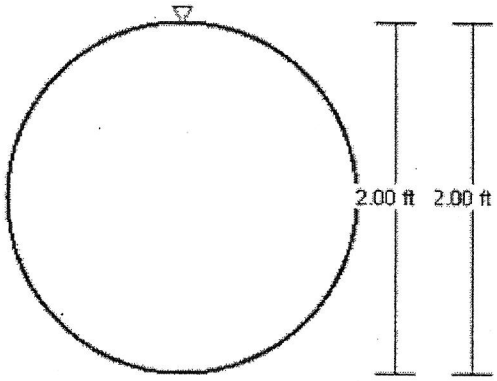
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.024	
Channel Slope	0.01000	ft/ft
Normal Depth	2.00	ft
Diameter	2.00	ft
Discharge	12.25	ft³/s

CAPACITY =

Cross Section Image



V: 1
H: 1

24" HDPE, S=1%, 100-yr Peak Flow

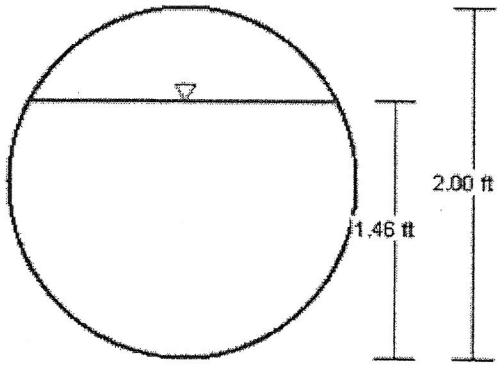
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.012		
Channel Slope	0.01000	ft/ft	
Normal Depth	1.46	ft	
Diameter	2.00	ft	
Discharge	21.70	ft³/s	CAPACITY = 25 cfs

Cross Section Image



V: 1
H: 1

WLHS Storm Pipe Analysis

Hydrologic Summary

Sub-Basin	Land Use	Area (Acres)	Hydroloic Condition	Hydrologic Soil Group	CN
A	Residential (1/4 Acre Lots)	39.3	N/A	C	83
B	Woods	39.4	Good	C	70
C	Woods	4.3	Good	D	77
	Total:	**83.0**		**Composite CN:**	**77**

Reference: "Urban Hydrology for Small Watersheds", NRCS Technical Release 55, Second Edition, June 1986

CITY OF WEST LINN
22500 Salamo Rd.
West Linn, OR. 97068
(503) 656-4211

PLANNING RECEIPT
Receipt: # 935711
Date : 05/17/2010
Project: #DR-10-08
BY: JN

NAME : WL/WV SCHOOL DISTRICT/TIM WOODLEY

ADDRESS : PO BOX 35

CITY/STATE/ZIP: WEST LINN OR 97068

PHONE # : 673-7196

SITE ADD. **: 5464 WEST A ST (WL HIGH SCHOOL)**

TYPE I HOME OCCUPATIONS		HO	$
PRE-APPLICATIONS	Level I ( ), Level II ( )	DR	$
HISTORIC REVIEW	Residential Major ( ), Minor ( ), New ( )	DR	$
	Commercial Major ( ), Minor ( ), New ( )		
SIGN PERMIT	Face ( ), Temporary ( ), Permanent ( )	DR	$
SIDEWALK USE PERMIT		DR	$
APPEALS	Plan. Dir. Dec. ( ), Subdivsion ( ), Plan Comm./City Coun. ( ), Nbhd ( )	DR	$
LOT LINE ADJUSTMENT		LA	$
CITY/METRO BUSINESS LICENSE		BL	$

The following items are paid by billing against the up-front deposit estimate. If the amount of time billed to your project exceeds the amount coverered by the deposit, additional payment may be required.

DESIGN REVIEW	Class I (X), Class II ( )	RD	$	850.00
VARIANCE	Class I ( ), Class II ( )	RD	$	
SUBDIVISION	Standard ( ), Expedited ( )	RD	$	
ANNEXATION	"Does Not Include Election Cost"	RD	$	
CONDITIONAL USE		RD	$	
ZONE CHANGE		RD	$	
MINOR PARTITION		RD	$	
MISCELLANEOUS PLANNING		RD	$	

Boundry Adjustments	( )		
Modification to approval	( )	Water Resource	
Code Amendments	( )	Area Protection	( )
Comp. Plan Amendments	( )	Street Vacations	( )
Temporary Permit Admin.	( )	Easement Vacations	( )
Temporary Permit Council	( )	Will. River Greenway	( )
Flood Management	( )	Tualatin River Grwy.	( )
Inter-Gov. Agreements N/C	( )	Street Name Change	( )
Alter Non-Conforming Res.	( )	Code Interpretations	( )
Alter Non-Conforming Comm.	( )	Type II Home Occ.	( )
Measure 37 Claims	( )	Planned Unit Dev. PUD	( )

TOTAL REFUNDABLE DEPOSIT	RD	$	850.00
GENERAL MISCELLANEOUS Type:	PM	$	

TOTAL Check # Credit Card (X) Cash ( ) $ 850.00

WLHS BASEBALL SEATING

West Linn Wilsonville School District

22210 SW Stafford Rd, Tualatin, OR 97062

CONTENTS

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civil engineer
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Tualatin, OR 97062
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architect
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Portland, Oregon 97205
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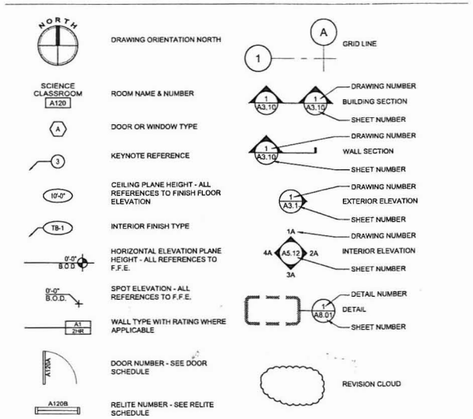
structural engineer
KPFF, Consulting Engineers.
111 SW 5th Avenue
Portland, OR 97204
t: (503) 227 3251

mechanical/plumbing/ electrical engineer
PAE, Consulting Engineers Inc.
808 SW Third Ave, Suite 300
Portland, OR 97204-2426
t: (503) 226 2921 f:(503) 226 2930

ARCHITECTURAL ABBREVIATIONS

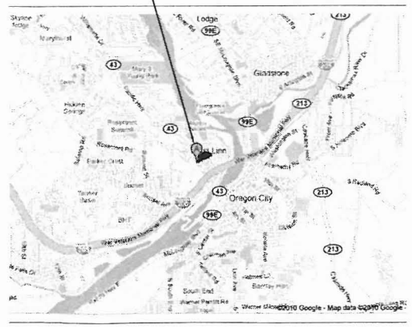
∠	ANGLE	EA	EACH	GA	GAUGE	NA	NOT APPLICABLE	T	TEMPERED GLAZING
&	AND	EF	EXHAUST FAN	GALV	GALVANIZED	NIC	NOT IN CONTRACT	TC	TOP OF CURB
AB	ANCHOR BOLT	EJ	EXPANSION JOINT	GB	GRAB BAR	NOM	NOMINAL	TEL	TELEPHONE
ACT	ACOUSTICAL CEILING TILE	EL	ELEVATION	GC	GENERAL CONTRACTOR	NS	NELSON STUD	T&G	TONGUE AND GROOVE
ADD	ADDENDUM	ELEC	ELECTRICAL	GL	GLASS	NTS	NOT TO SCALE	THK	THICK
A.F.F.	ABOVE FINISH FLOOR	E.O.S.	EDGE OF SLAB	GND	GROUND			TJ	TOOL JOINT
ALS	AREA LIGHT STANDARD	ENGR	ENGINEER	GVP	GYPSUM VENEER PLASTER	OA	OVERALL	TP	TOP OF PAVEMENT
ALUM	ALUMINUM	EP	ELECTRICAL PANEL	GWB	GYPSUM WALL BOARD	OC	ON CENTER	TYP	TYPICAL
ANOD	ANODIZED	EQ	EQUAL			O.D.	OVERFLOW DRAIN	TOD	TOP OF (MATERIAL)
		EQUIP	EQUIPMENT	HB	HOSE BIB	OD	OUTSIDE DIAMETER		
BC	BOTTOM OF CURB	ES	EACH SIDE	HC	HANDICAP	OH	OVERHEAD	UNFIN	UNFINISHED
BD	BOARD	EW	EACH WAY	HDWR	HARDWARE	OPNG	OPENING	UNO	UNLESS NOTED OTHERWISE
BLDG	BUILDING	EXST	EXISTING	HM	HOLLOW METAL	OPP	OPPOSITE		
BLKG	BLOCKING	(E)	EXISTING	HW	HOT WATER	OS	OUTSIDE	VB	VAPOR BARRIER
B.M.	BENCH MARK	EXP	EXPANSION	HVAC	HEATING, VENTILATION AND AIR CONDITIONING			VERT	VERTICAL
BM	BEAM	EXT	EXTERIOR			PIP	POURED IN PLACE	VEST	VESTIBULE
BOT	BOTTOM					PL	PROPERTY LINE	VFY	VERIFY
BTU	BRITISH THERMAL UNIT	FA	FIRE ALARM	INSUL	INSULATION	PLAS	PLASTER		
BTWN	BETWEEN	FBO	FURNISHED BY OTHERS	INT	INTERIOR	PLYWD	PLYWOOD	W/	WITH
		FD	FLOOR DRAIN			PSF	PER SQUARE FOOT	WC	WATER CLOSET
CHR C	CHANNEL	FDN	FOUNDATION	JAN	JANITOR	P.T.	PRESSURE TREATED	WD	WOOD
CB	CATCH BASIN	FE	FIRE EXTINGUISHER	JT	JOINT	PVMT	PAVEMENT	WF	WIDE FLANGE
CCTV	CLOSED CIRCUIT TV	FEC	FIRE EXTINGUISHER CABINET	JST	JOIST			WG	WIRE GLASS
CG	CORNER GUARD	FF	FINISH FLOOR			R.	RADIUS	WH	WATER HEATER
CLG	CEILING	FFE	FINISH FLOOR ELEVATION	L	LENGTH	R.D.	ROOF DRAIN	W/O	WITHOUT
CLR	CLEAR	FIN	FINISH	LAV	LAVATORY	REF	REFERENCE	WP	WATERPROOFING
CJ	CONTROL JOINT	FL	FLOOR	LB	LAG BOLT	REFR	REFRIGERATOR	WT	WEIGHT
CMU	CONCRETE MASONRY UNIT	FO	FACE OF	LKR	LOCKER	REQ'D	REQUIRED		
CONT	CONTINUOUS	FOC	FACE OF CONCRETE	LS	LANDSCAPING	REV	REVISE OR REVISION		
CORR	CORRIDOR	FOF	FACE OF FINISH	LVR	LOUVER	RM	ROOM		
CS J	CONSTRUCTION JOINT	FOM	FACE OF MASONRY			R.O.	ROUGH OPENING		
CSMT	CASEMENT	FOS	FACE OF STUD	MATL	MATERIAL	RCP	REFLECTED CEILING PLAN		
CT	CERAMIC TILE	FOIC	FURNISHED BY OWNER INSTALLED BY CONTRACTOR	MAX	MAXIMUM				
CTR	CENTER			MECH	MECHANICAL	SC	SOLID CORE		
℄	CENTERLINE	FOIO	FURNISHED BY OWNER INSTALLED BY OWNER	MED	MEDIUM	SECT	SECTION		
				MEZZ	MEZZANINE	SF	SQUARE FOOT		
DBL	DOUBLE	FRT	FIRE RETARDANT TREATED	MFR	MANUFACTURER	SHTG	SHEATHING		
DTL	DETAIL	FTG	FOOTING	MH	MANHOLE	SHWR	SHOWER		
DF	DRINKING FOUNTAIN	FURR	FURRING	MIN	MINIMUM	SHT	SHEET		
DIA	DIAMETER			MIR	MIRROR	SIM	SIMILAR		
DIAG	DIAGONAL			MISC	MISCELLANEOUS	SJ	SEISMIC JOINT		
DIM	DIMENSION			MTD	MOUNTED	SM	SHEET METAL		
DISP	DISPENSER			MTL	METAL	SPEC	SPECIFICATION		
DN	DOWN					SQ	SQUARE		
DP	DAMPROOFING					SS	STAINLESS STEEL		
DR	DOOR					STD	STANDARD		
DS	DOWN SPOUT					STL	STEEL		
DT	DRAIN TILE					STOR	STORAGE		
DWG	DRAWING					STRUCT	STRUCTURAL		
						SUSP	SUSPENDED		

ARCHITECTURAL SYMBOLS



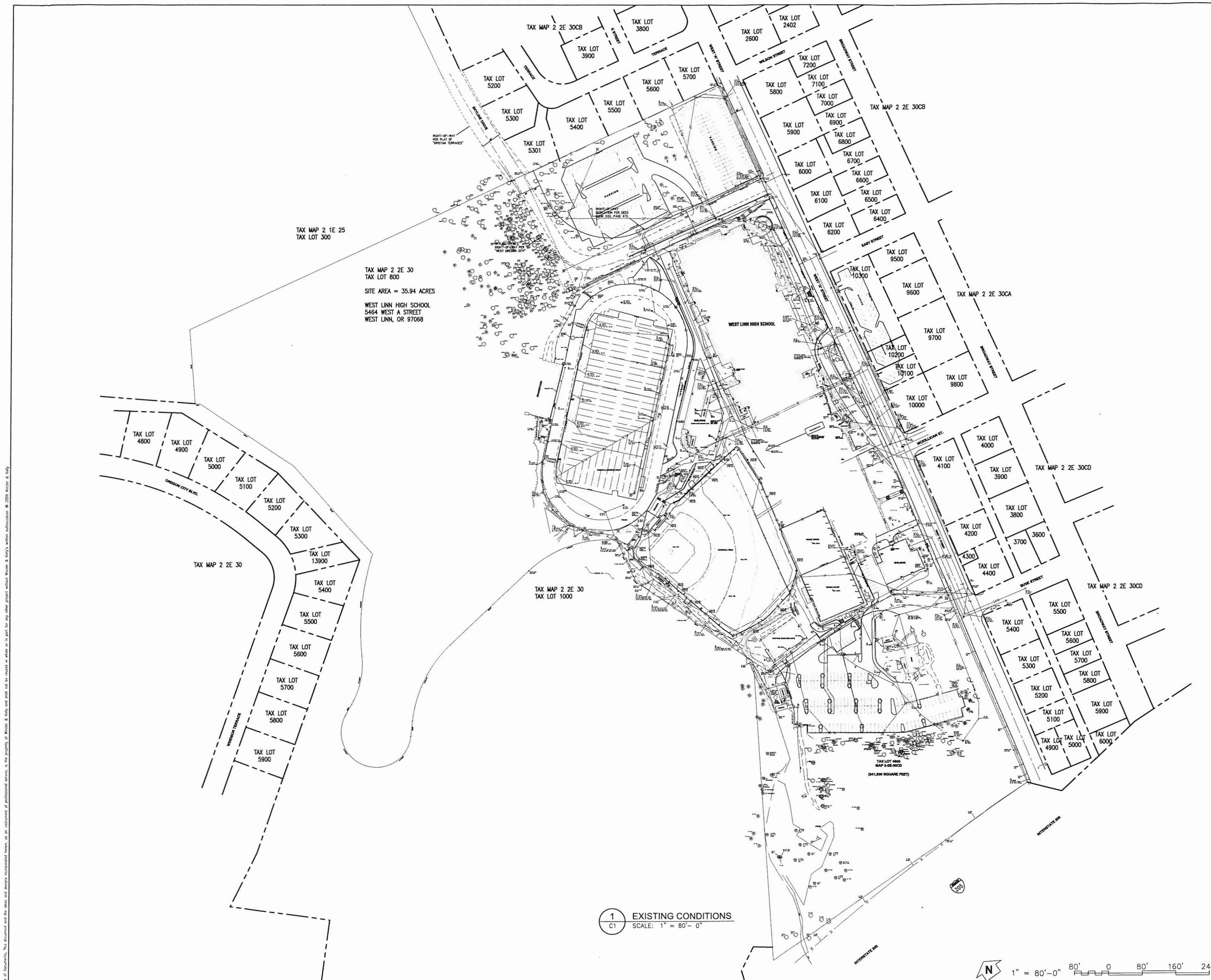
VICINITY MAP

5464 West A Street,
West Linn, OR



DESIGN REVIEW

WLHS BASEBALL SEATING | project # 09001
Design Review | march 2010


TAX MAP 2 2E 30CB
TAX LOT 3800
TAX LOT 3900
TAX LOT 2402
TAX LOT 2600
TAX LOT 5200
TAX LOT 5300
TAX LOT 5301
TAX LOT 5400
TAX LOT 5500
TAX LOT 5600
TAX LOT 5700
TAX LOT 7200
TAX LOT 7100
TAX LOT 7000
TAX LOT 5800
TAX LOT 6900
TAX LOT 5900
TAX LOT 6800
TAX LOT 6700
TAX LOT 6000
TAX LOT 6600
TAX LOT 6100
TAX LOT 6500
TAX LOT 6400
TAX LOT 6200
TAX MAP 2 2E 30CB
TAX MAP 2 1E 25
TAX LOT 300
TAX MAP 2 2E 30
TAX LOT 800
SITE AREA = 35.94 ACRES
WEST LINN HIGH SCHOOL
5464 WEST A STREET
WEST LINN, OR 97068
WEST LINN HIGH SCHOOL
TAX LOT 9500
TAX LOT 10300
TAX LOT 9600
TAX MAP 2 2E 30CA
TAX LOT 9700
TAX LOT 10200
TAX LOT 10100
TAX LOT 9800
TAX LOT 10000
TAX LOT 4800
TAX LOT 4900
TAX LOT 5000
TAX LOT 5100
TAX LOT 5200
TAX LOT 5300
TAX LOT 13900
TAX LOT 5400
TAX LOT 5500
TAX LOT 5600
TAX LOT 5700
TAX LOT 5800
TAX LOT 5900
TAX MAP 2 2E 30
TAX MAP 2 2E 30
TAX LOT 1000
TAX LOT 4000
TAX LOT 4100
TAX LOT 3900
TAX MAP 2 2E 30CD
TAX LOT 3800
TAX LOT 4200
TAX LOT 3700
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TAX LOT 4400
TAX MAP 2 2E 30CD
TAX LOT 5500
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TAX LOT 5600
TAX LOT 5700
TAX LOT 5300
TAX LOT 5800
TAX LOT 5200
TAX LOT 5900
TAX LOT 5100
TAX LOT 4900
TAX LOT 5000
TAX LOT 6000
1
C1
EXISTING CONDITIONS
SCALE: 1" = 80'- 0"
N
1" = 80'-0"
80' 0 80' 160' 240'

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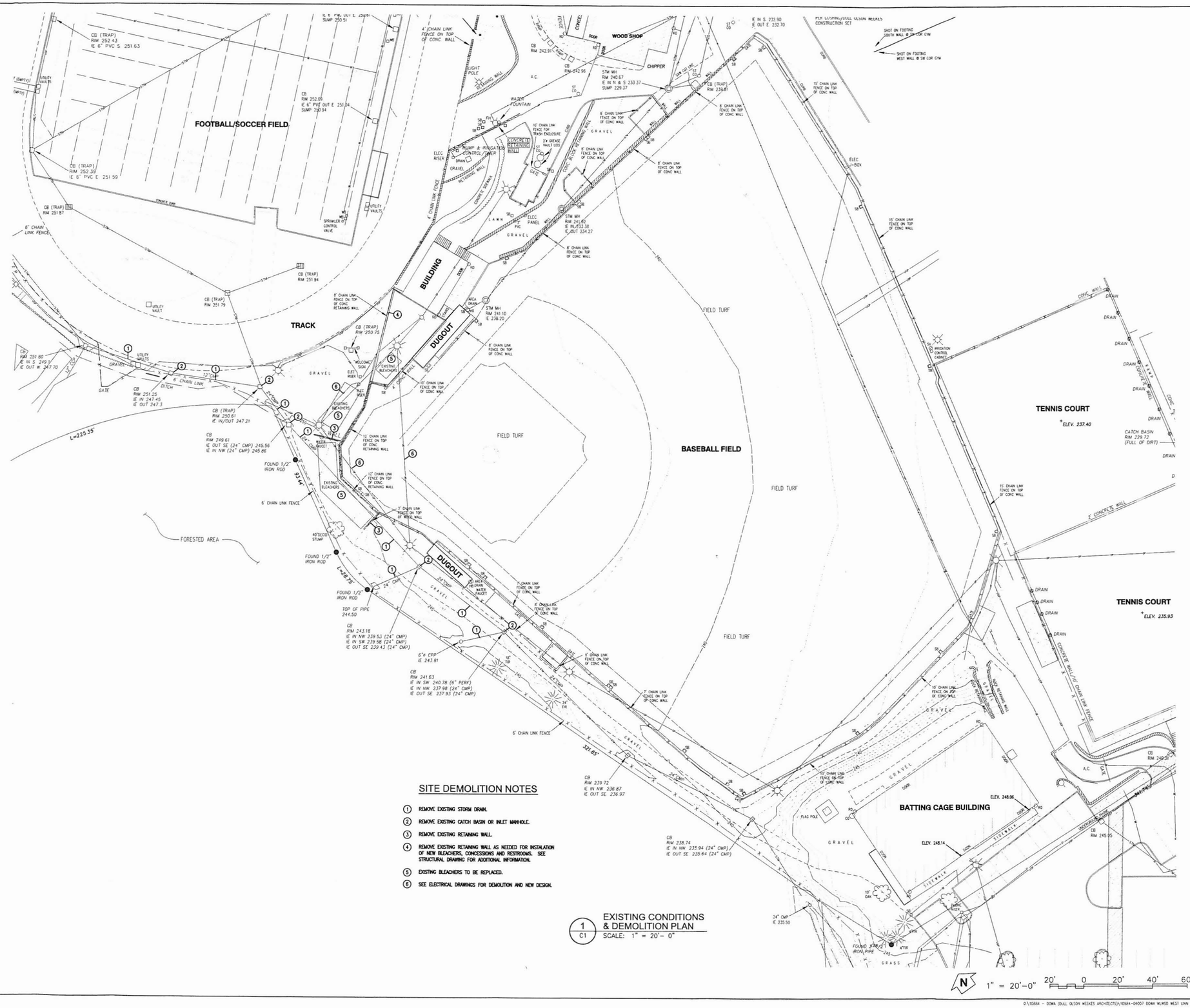
PH (503) 226-3921 ♦ FAX (503) 226-3926
WWW.W-AND-K.COM

key plan

phase	design review
date	April 12, 2010
revisions	
project #	09001

EXISTING CONDITIONS & DEMOLITION

C0



SITE DEMOLITION NOTES

1. REMOVE EXISTING STORM DRAIN.
2. REMOVE EXISTING CATCH BASIN OR INLET MANHOLE.
3. REMOVE EXISTING RETAINING WALL.
4. REMOVE EXISTING RETAINING WALL AS NEEDED FOR INSTALATION OF NEW BLEACHERS, CONCESSIONS AND RESTROOMS. SEE STRUCTURAL DRAWING FOR ADDITIONAL INFORMATION.
5. EXISTING BLEACHERS TO BE REPLACED.
6. SEE ELECTRICAL DRAWINGS FOR DEMOLITION AND NEW DESIGN.

1 / C1 EXISTING CONDITIONS & DEMOLITION PLAN
SCALE: 1" = 20'- 0"

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t: 503 224 6950 f: 503 273 9192 www.dowa.com

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PORTLAND, OR 97224
PH (503) 226-3021 • FAX (503) 226-3926
WWW.WAND-K.COM

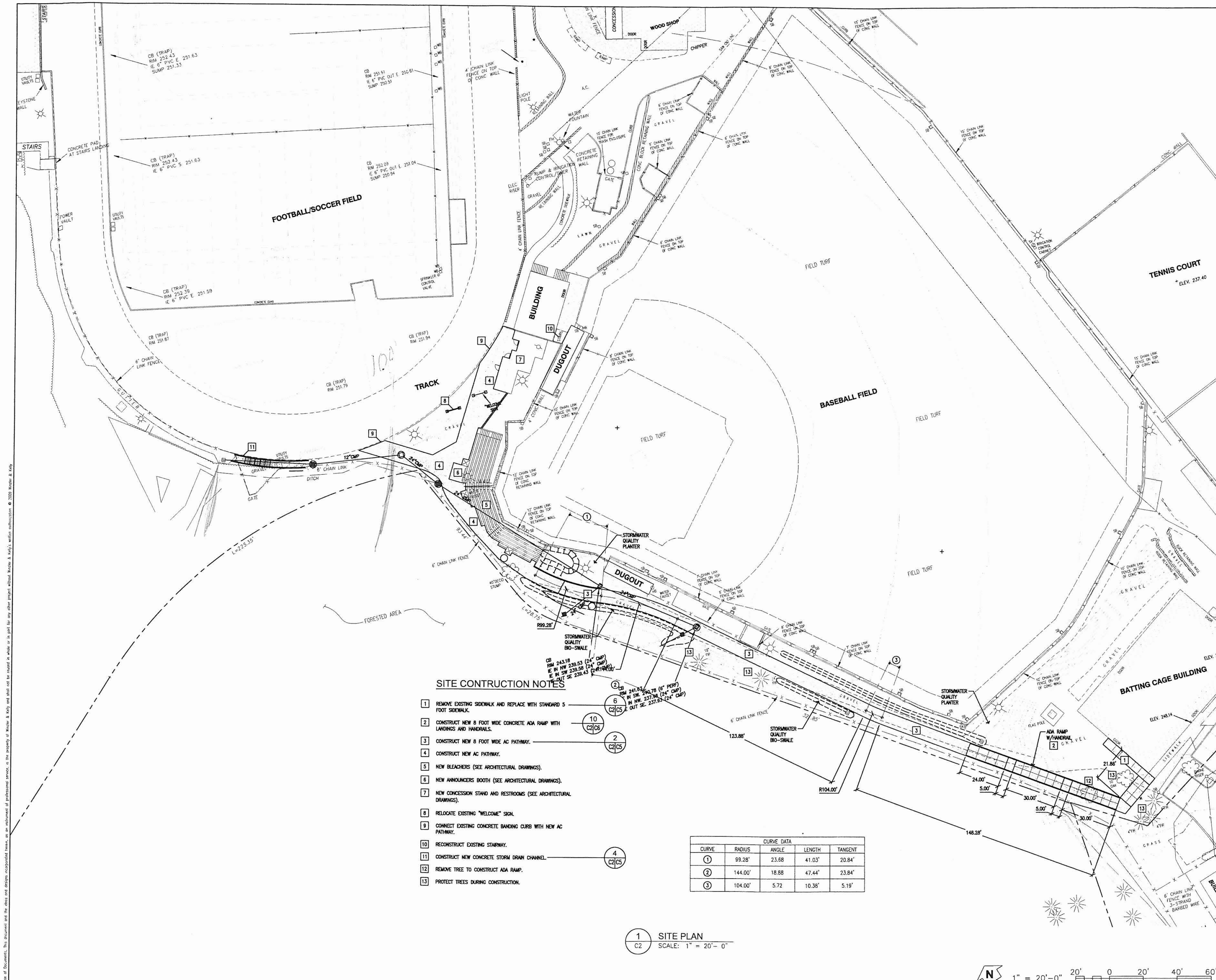
key plan

phase	design review
date	April 12, 2010
revisions	

project # 09001

EXISTING CONDITIONS & DEMOLITION

C1



SITE CONTRUCTION NOTES

1. REMOVE EXISTING SIDEWALK AND REPLACE WITH STANDARD 5 FOOT SIDEWALK. (6 / C2 C5)
2. CONSTRUCT NEW 8 FOOT WIDE CONCRETE ADA RAMP WITH LANDINGS AND HANDRAILS. (10 / C2 C6)
3. CONSTRUCT NEW 8 FOOT WIDE AC PATHWAY. (2 / C2 C5)
4. CONSTRUCT NEW AC PATHWAY.
5. NEW BLEACHERS (SEE ARCHITECTURAL DRAWINGS).
6. NEW ANNOUNCERS BOOTH (SEE ARCHITECTURAL DRAWINGS).
7. NEW CONCESSION STAND AND RESTROOMS (SEE ARCHITECTURAL DRAWINGS).
8. RELOCATE EXISTING "WELCOME" SIGN.
9. CONNECT EXISTING CONCRETE BANDING CURB WITH NEW AC PATHWAY.
10. RECONSTRUCT EXISTING STAIRWAY.
11. CONSTRUCT NEW CONCRETE STORM DRAIN CHANNEL. (4 / C2 C5)
12. REMOVE TREE TO CONSTRUCT ADA RAMP.
13. PROTECT TREES DURING CONSTRUCTION.

CURVE DATA				
CURVE	RADIUS	ANGLE	LENGTH	TANGENT
1	99.28'	23.68	41.03'	20.84'
2	144.00'	18.88	47.44'	23.84'
3	104.00'	5.72	10.38'	5.19'

1 / C2 SITE PLAN
SCALE: 1" = 20'- 0"

N 1" = 20'-0" 20' 0 20' 40' 60'

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WLHS Baseball Seating

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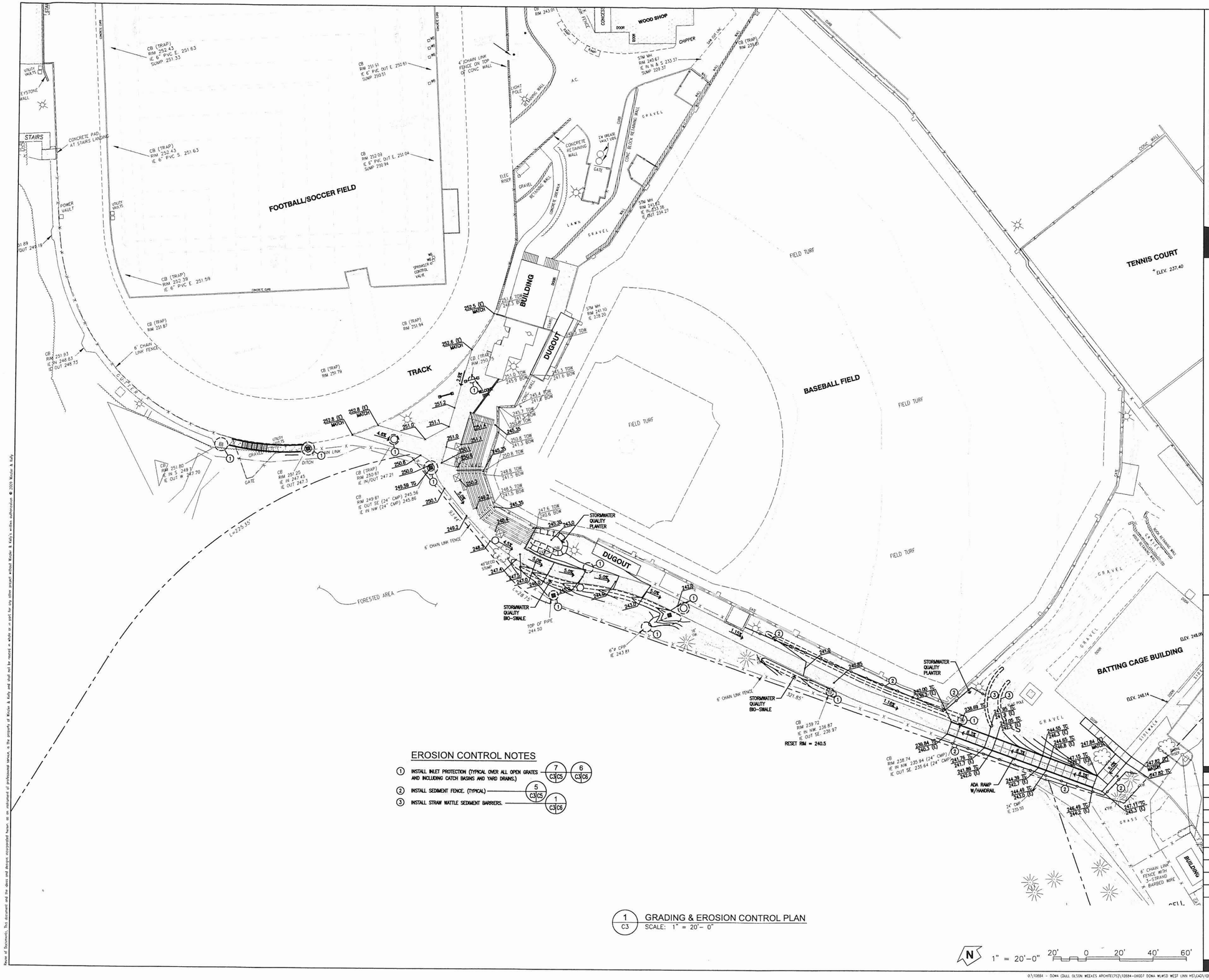
WWW.W-AND-K.COM

key plan

phase	design review
date	April 12, 2010
revisions	
project #	09001

SITE PLAN

C2



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WLHS Baseball Seating

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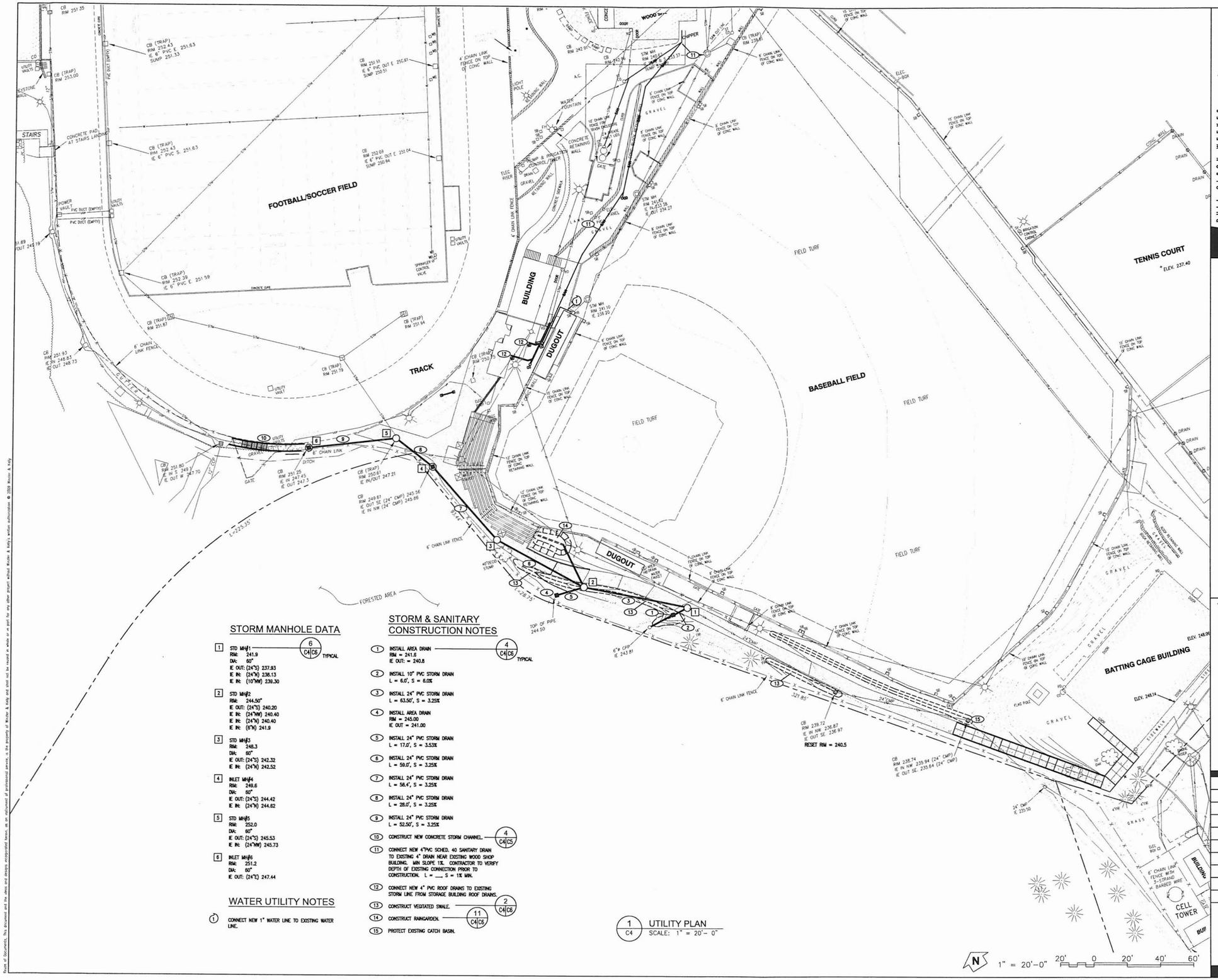
key plan

phase	design review
date	April 12, 2010
revisions	

project # 09001

GRADING & EROSION CONTROL PLAN

C3



STORM MANHOLE DATA

1 STD MH#1 — RIM: 241.9; DIA: 60"; IE OUT: (24"S) 237.93; IE IN: (24"N) 238.13; IE IN: (10"NW) 239.30 — 6 C4/C6 TYPICAL

2 STD MH#2 — RIM: 244.50"; IE OUT: (24"S) 240.20; IE IN: (24"NW) 240.40; IE IN: (24"N) 240.40; IE IN: (8"W) 241.8

3 STD MH#3 — RIM: 248.3; DIA: 60"; IE OUT: (24"S) 242.32; IE IN: (24"N) 242.52

4 INLET MH#4 — RIM: 249.6; DIA: 60"; IE OUT: (24"S) 244.42; IE IN: (24"N) 244.62

5 STD MH#5 — RIM: 252.0; DIA: 60"; IE OUT: (24"S) 245.53; IE IN: (24"NW) 245.73

6 INLET MH#6 — RIM: 251.2; DIA: 60"; IE OUT: (24"E) 247.44

WATER UTILITY NOTES

1 CONNECT NEW 1" WATER LINE TO EXISTING WATER LINE.

STORM & SANITARY CONSTRUCTION NOTES

1 INSTALL AREA DRAIN — RIM = 241.6; IE OUT: = 240.8 — 4 C4/C6 TYPICAL

2 INSTALL 10" PVC STORM DRAIN L = 6.0', S = 6.0%

3 INSTALL 24" PVC STORM DRAIN L = 63.50', S = 3.25%

4 INSTALL AREA DRAIN RIM = 245.00 IE OUT = 241.00

5 INSTALL 24" PVC STORM DRAIN L = 17.0', S = 3.53%

6 INSTALL 24" PVC STORM DRAIN L = 59.0', S = 3.25%

7 INSTALL 24" PVC STORM DRAIN L = 58.4', S = 3.25%

8 INSTALL 24" PVC STORM DRAIN L = 28.0', S = 3.25%

9 INSTALL 24" PVC STORM DRAIN L = 52.50', S = 3.25%

10 CONSTRUCT NEW CONCRETE STORM CHANNEL. — 4 C4/C5

11 CONNECT NEW 4"PVC SCHED. 40 SANITARY DRAIN TO EXISTING 4" DRAIN NEAR EXISTING WOOD SHOP BUILDING. MIN SLOPE 1%. CONTRACTOR TO VERIFY DEPTH OF EXISTING CONNECTION PRIOR TO CONSTRUCTION. L = ___, S = 1% MIN.

12 CONNECT NEW 4" PVC ROOF DRAINS TO EXISTING STORM LINE FROM STORAGE BUILDING ROOF DRAINS.

13 CONSTRUCT VEGITATED SWALE. — 2 C4/C6

14 CONSTRUCT RAINGARDEN. — 11 C4/C6

15 PROTECT EXISTING CATCH BASIN.

1 C4 UTILITY PLAN
SCALE: 1" = 20'-0"

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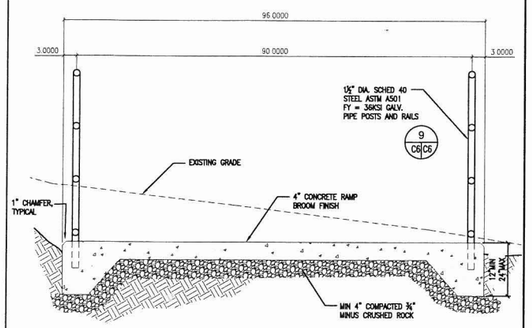
phase	design review
date	April 12, 2010
revisions	

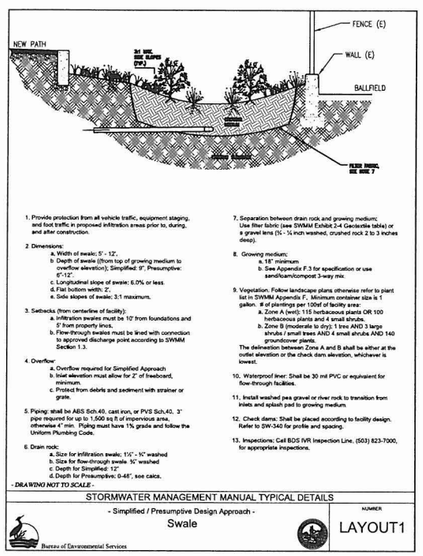
project # 09001

UTILITY PLAN

C4



10 C6 CONCRETE ADA RAMP WITH HANDRAIL
SCALE: NONE



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width of swale: 5' - 12'.
   b. Depth of swale ((from top of growing medium to overflow elevation); Simplified: 9". Presumptive: 6"-12".
   c. Longitudinal slope of swale: 6.0% or less.
   d. Flat bottom width: 2'.
   e. Side slopes of swale: 3:1 maximum.

3. Setbacks (from centerline of facility):
   a. Infiltration swales must be 10' from foundations and 5' from property lines.
   b. Flow-through swales must be lined with connection to approved discharge point according to SWMM Section 1.3.

4. Overflow:
   a. Overflow required for Simplified Approach
   b. Inlet elevation must allow for 2" of freeboard, minimum.
   c. Protect from debris and sediment with strainer or grate.

5. Piping: shall be ABS Sch.40, cast iron, or PVS Sch.40. 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping must have 1% grade and follow the Uniform Plumbing Code.

6. Drain rock:
   a. Size for infiltration swale: 1¼" - ¾" washed
   b. Size for flow-through swale: ¾" washed
   c. Depth for Simplified: 12".
   d. Depth for Presumptive: 0-48", see calcs.

7. Separation between drain rock and growing medium: Use filter fabric (see SWMM Exhibit 3.4 Geotextile table) or a gravel lens (¾ - 1½ inch washed, crushed rock 2 to 3 inches deep).

8. Growing medium:
   a. 18" minimum.
   b. See Appendix F.3 for specification or use sand/loam/compost 3-way mix.

9. Vegetation. Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Minimum container size is 1 gallon. # of plantings per 100sf of facility area:
   a. Zone A (wet): 115 herbaceous plants OR 100 herbaceous plants and 4 small shrubs.
   b. Zone B (moderate to dry): 1 tree AND 3 large shrubs / small trees AND 4 small shrubs AND 140 groundcover plants.
   The delineation between Zone A and B shall be either at the outlet elevation or the check dam elevation, whichever is lowest.

10. Waterproof liner: Shall be 30 mil PVC or equivalent for flow-through facilities.

11. Install washed pea gravel or river rock to transition from inlets and splash pad to growing medium.

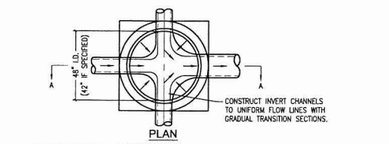
12. Check dams: Shall be placed according to facility design. Refer to SW-340 for profile and spacing.

13. Inspections: Call BDS IVR Inspection Line, (503) 823-7000, for appropriate inspections.

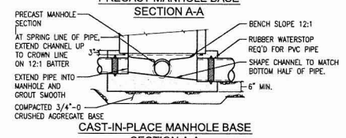
- DRAWING NOT TO SCALE -

STORMWATER MANAGEMENT MANUAL TYPICAL DETAILS
- Simplified / Presumptive Design Approach -
Swale
Bureau of Environmental Services
NUMBER LAYOUT1

11 C6 RAINWATER GARDEN SECTION
SCALE: NONE



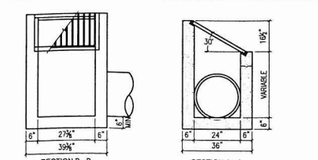
PRECAST MANHOLE BASE
SECTION A-A



CAST-IN-PLACE MANHOLE BASE
SECTION A-A

NOTES:
1. CONCRETE SHALL BE CLASS 3000 COMMERCIAL GRADE.
2. CHANNELS SHALL BE CONSTRUCTED TO PROVIDE SMOOTH SLOPES AND RADII TO OUTLET PIPE.
3. BASES MAY BE PRECAST OR POURED IN PLACE.
4. THIS MANHOLE BASE SECTION SHALL BE USED FOR PIPE SIZES UP TO 24".
5. USE RUBBER BOOTS IF PIPE IS FLEXIBLE. BOOTS MAY BE KOR-N-SEAL OR EQUIVALENT.
6. ALL CONNECTING PIPES SHALL HAVE A FLEXIBLE COMPRESSION JOINT WITHIN 18" OF MANHOLE WALL.

7 C6 MANHOLE BASE SECTION DETAIL
SCALE: NONE



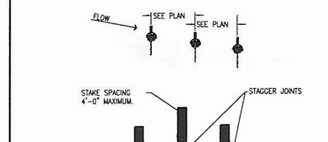
PLAN

NOTES:
1. CONCRETE STRENGTH SHALL BE 3000 PSI COMMERCIAL GRADE.
2. G-2 GRATES MAY BE USED IF APPROVED BY THE ENGINEER.
3. CATCH BASIN, FRAME, AND GRATES SHALL MEET H20 LOADING.
4. INSIDE FRAME DIMENSIONS: 27⅛"x32½".

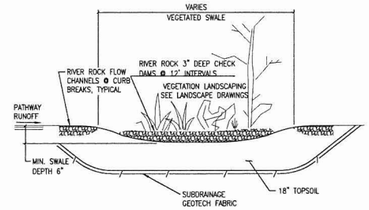
INLET TYPE	V	Y	½	NUMBER OF BARS	TYPE
D	2'-4½"	2'-3"	2'-3"	9	1

NOTE:
¾" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.

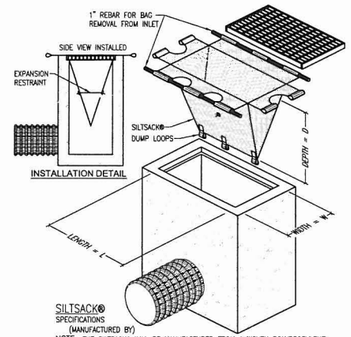
4 C6 DITCH INLET DETAIL
SCALE: NONE



1 C6 STRAW WATTLE SEDIMENT BARRIER
SCALE: NONE



2 C6 VEGETATED SWALE
SCALE: NONE



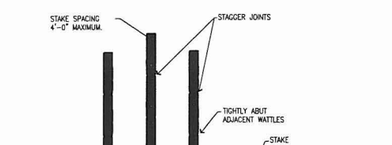
SILTSACK® SPECIFICATIONS
(MANUFACTURED BY)

NOTE: THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

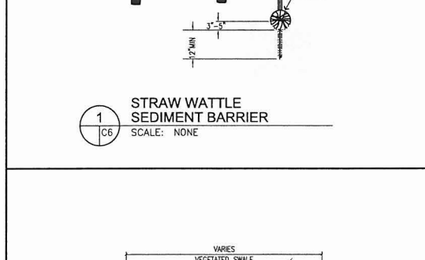
REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

5 C6 INLET PROTECTION
SCALE: NONE



CAST IRON TAMPERPROOF & WATERTIGHT
(FRAMES AVAILABLE IN STANDARD OR SUBURBAN PATTERN)

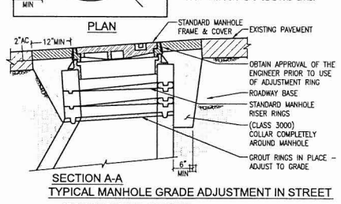


NOTE:
3 REQUIRED, ¾"x1¼" PENTAGONAL OR HEXAGONAL HEAD, BRONZE OR CAD. PLATED. INSTALL FRAME SO THAT ONE BOLT BOSS IS LOCATED OVER THE MANHOLE LADDER.

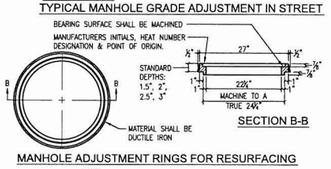
NOTES:
1. TAMPERPROOF COVERS REQUIRED ON SANITARY OR STORM DRAIN MANHOLE WHERE LOCATED IN PEDESTRIAN WAYS OR EASEMENT AREAS. TAMPERPROOF COVERS FOR SANITARY MANHOLES SHALL HAVE 2 HOLES MAXIMUM.
2. WATERTIGHT COVERS REQUIRED IF LOCATED WHERE COVER MAY BE SUBMERGED.
3. FRAMES AND COVERS SHALL BE STAMPED WITH MANUFACTURER'S INITIALS, HEAT NUMBER AND POINT OF ORIGIN.

3 C6 MANHOLE COVER & FRAME DETAIL
SCALE: NONE

PLAN



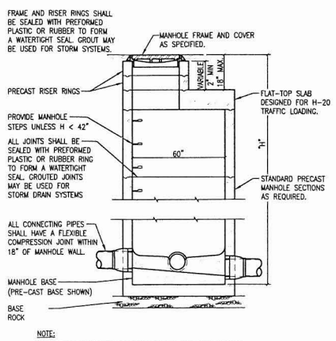
SECTION A-A
TYPICAL MANHOLE GRADE ADJUSTMENT IN STREET



MANHOLE ADJUSTMENT RINGS FOR RESURFACING

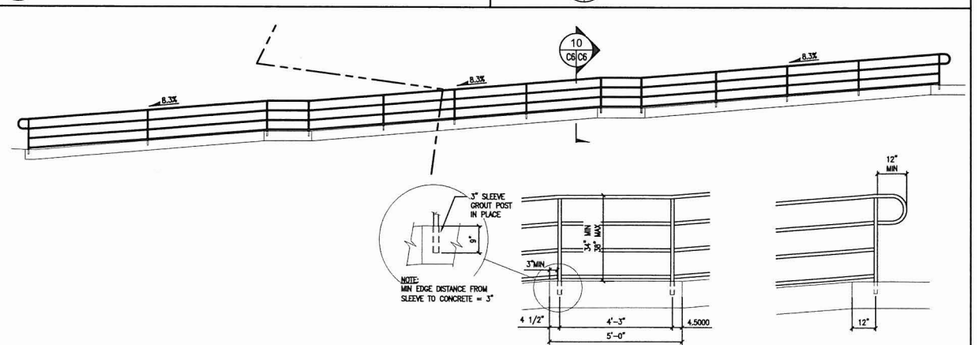
NOTE:
THE DISTANCE FROM THE TOP OF THE FRAME TO THE TOP OF THE CONE SHALL NOT EXCEED 18".

8 C6 MANHOLE ADJUSTMENT DETAIL
SCALE: NONE



NOTE:
1. SEE MANHOLE BASE SECTION DRAWING FOR BASE DETAILS.
2. ALL CONNECTING PIPES SHALL HAVE A FLEXIBLE JOINT WITHIN 18" OF MANHOLE WALL.

6 C6 FLAT-TOP MANHOLE DETAIL
SCALE: NONE



9 C6 HANDRAIL DETAIL
SCALE: NONE

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project #	09001

DETAILS

C6

GENERAL NOTES:
1. ELIMINATE OVERHEAD POWER LINES
2. ELIMINATE TRANSFORMERS AND POWER POLES
3. PROVIDE ACCESS TO SEATING, CONCESSIONS AND ADA RESTROOMS FROM UPPER TRACK LEVEL.

KEYNOTES:
1. SCREEN TO PREVENT BASEBALLS FROM BEING HIT INTO THE ADJACENT PARK.
2. PROVIDE ADA PATH FROM SOUTH PARKING LOT FROM FIRST BASE SIDE OF FIELD TO THE FOOTBALL FIELD (WITH LIGHTING).
3. PROVIDE SCREENING FOR SAFE SPECTATOR SEATING AT BLEACHERS.
4. MODIFY EXISTING CONCRETE WALL AT BACKSTOP. START FIRST ROW OF BLEACHERS CLOSER TO LEVEL OF BASEBALL FIELD.
5. EXTEND TRACK SHED TO INCORPORATE RESTROOMS (ACCESS FROM UPPER LEVEL / TRACK LEVEL).
6. PROVIDE ACCESS TO ADA RESTROOMS
7. SEATING FOR 300.
8. PROVIDE ANNOUNCER'S BOOTH
9. NEW 8" FREE STANDING CONCRETE SLAB TO CREATE A BRIDGE BETWEEN TWO ADJACENT RETAINING WALL. EXTEND CHAIN LINK FENCE UNDER BRIDGE TO CLOSE OFF OPENING.
10. NEW CONCRETE STAIRS
11. NEW CONTINUOUS PADDING ATTACHED TO RETAINING WALL BEHIND HOME BASE.
12. SALVAGE BRONZE FACIAL DETAIL FROM (E) MEMORIAL SIGN

BASEBALL FIELD SITE PLAN (1)
SCALE: 1/16"=1'-0"

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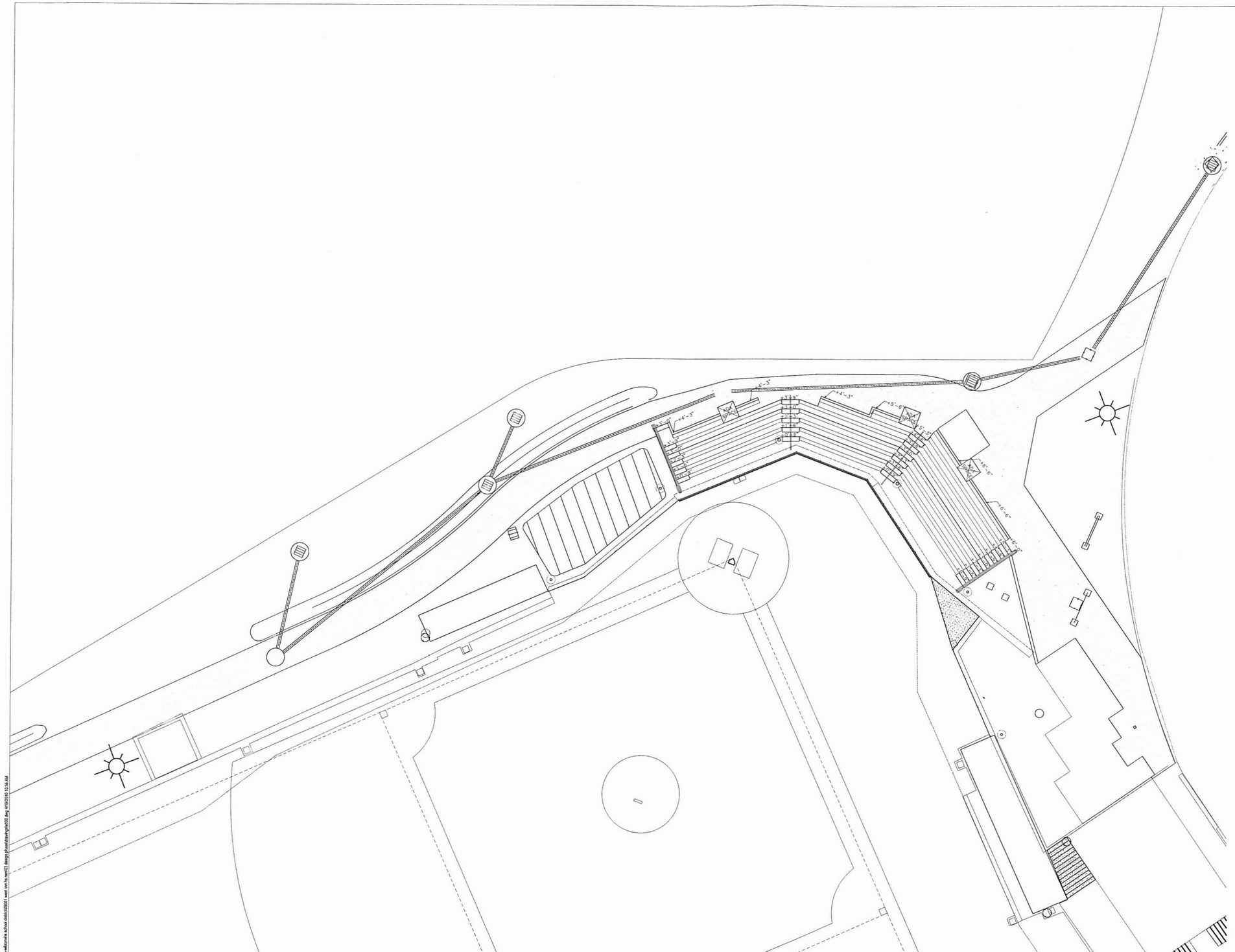
project #	09001

OVERALL SITE PLAN

A1.00



BASEBALL FIELD SITE PLAN 1
SCALE: 1/8"=1'-0"

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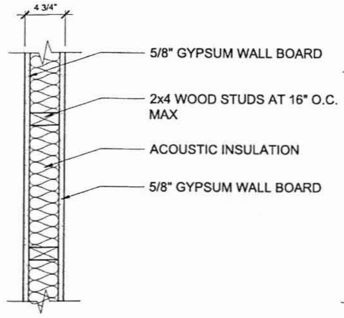
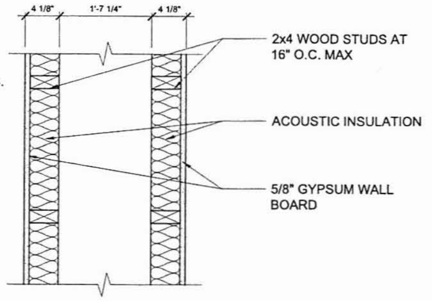
SITE PLAN

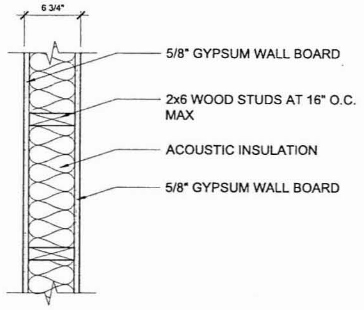
A1.01



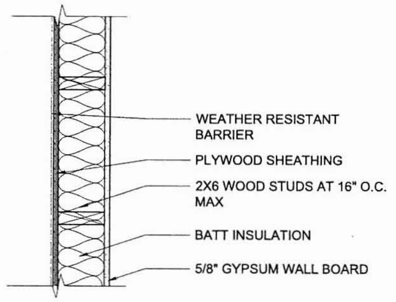
WALL TYPE A4 (8)
SCALE:1 1/2" = 1'-0"



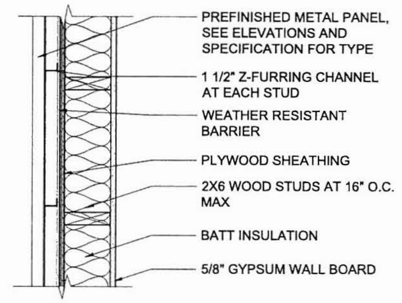
WALL TYPE A3 (7)
SCALE:1 1/2" = 1'-0"



WALL TYPE A2 (6)
SCALE:1 1/2" = 1'-0"



WALL TYPE A5 (5)
SCALE:1 1/2" = 1'-0"



WALL TYPE A1 (4)
SCALE:1 1/2" = 1'-0"

CONSESSION FLOOR FINISH PLAN (3)
SCALE:1/4" = 1'-0"

RCP LEGEND:

- 2X4 FIXTURE
- STRIP FIXTURE
- LINEAR FIXTURE
- OTS — OPEN TO STRUCTURE
- SUPPLY AIR DIFFUSER
- RETURN AIR DIFFUSER
- ACCESS PANEL-SEE MECH. FOR FINAL SIZE AND LOCATION. (NOTE: ADDITIONAL ACCESS PANELS MAY BE REQUIRED-COOR'D. WITH MECH. AND ELECT.)
- ACOUSTICAL CEILING TILE PANEL PENETRATION DETAIL: SUPPLY OR RETURN AIR GRILL OF DIFFUSER; SPRINKLER HEAD
- ACT-1
- PAINTED GYP. BOARD CEILING

GENERAL SHEET NOTES

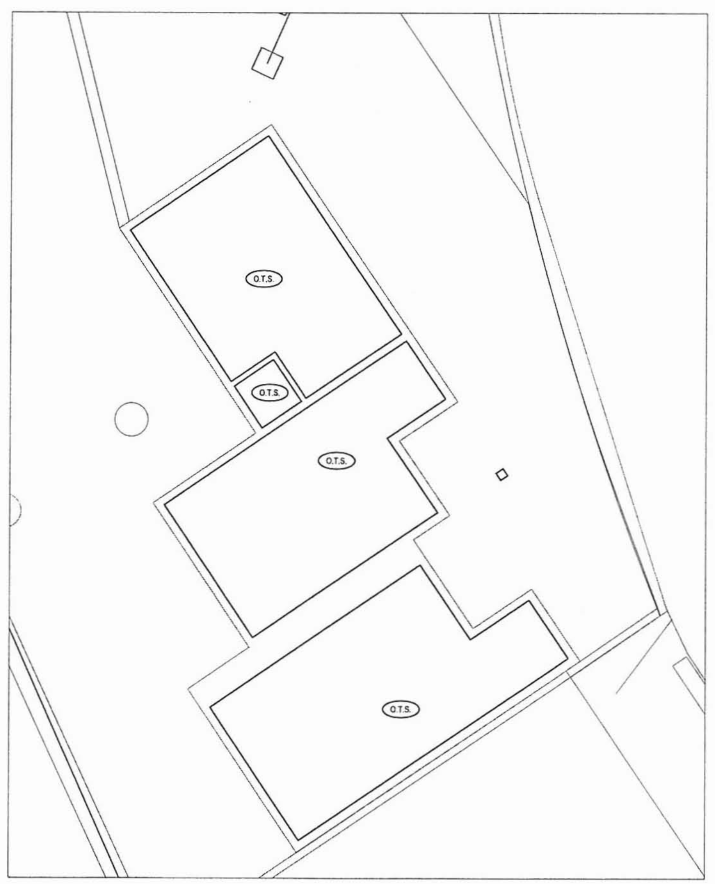
A. MATERIALS IN SIMILAR LOCATIONS NOT NOTED AT EVERY OCCURRENCE.

B. FLOOR MATERIALS TYPICALLY EXTEND UNDER CABINETS TO TOE KICK AND EXTEND TO WALL UNDER OPEN COUNTERS, UNLESS NOTED OTHERWISE.

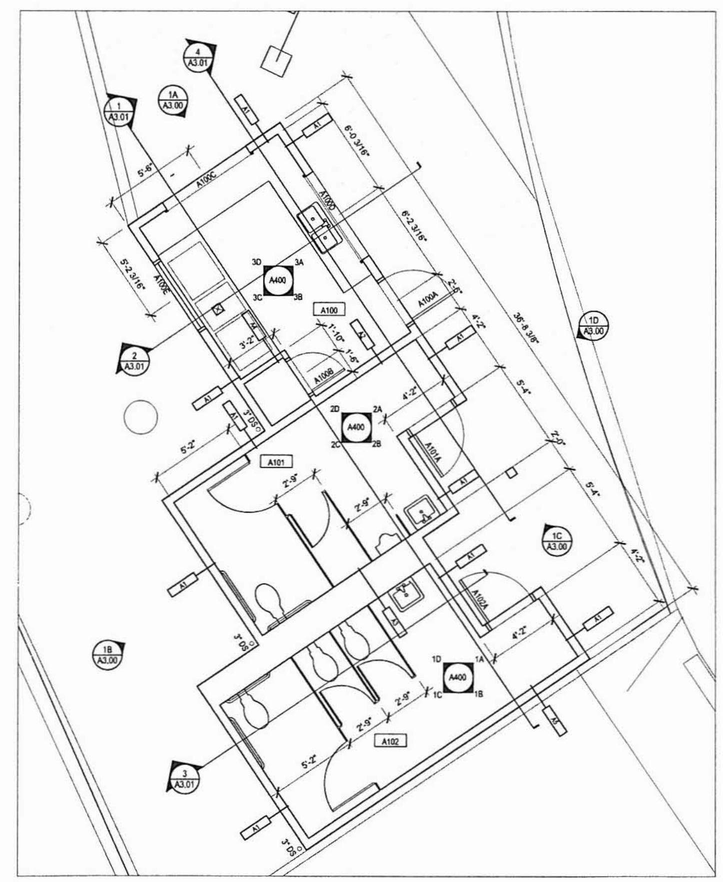
C. REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

FLOOR FINISH LEGEND

- SEALED CONCRETE



CONSESSION RCP PLAN (2)
SCALE:1/4" = 1'-0"



CONSESSION PLAN (1)
SCALE:1/4" = 1'-0"

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FLOOR PLAN

A2.00

RCP LEGEND:

- 2X4 FIXTURE
- STRIP FIXTURE
- LINEAR FIXTURE
- OTS — OPEN TO STRUCTURE
- ACT-1
- SUPPLY AIR DIFFUSER
- RETURN AIR DIFFUSER
- ACCESS PANEL-SEE MECH. FOR FINAL SIZE AND LOCATION. (NOTE: ADDITIONAL ACCESS PANELS MAY BE REQUIRED-COOR'D. WITH MECH. AND ELECT.)
- ACOUSTICAL CEILING TILE PANEL PENETRATION DETAIL: SUPPLY OR RETURN AIR GRILL OF DIFFUSER; SPRINKLER HEAD
- PAINTED GYP. BOARD CEILING

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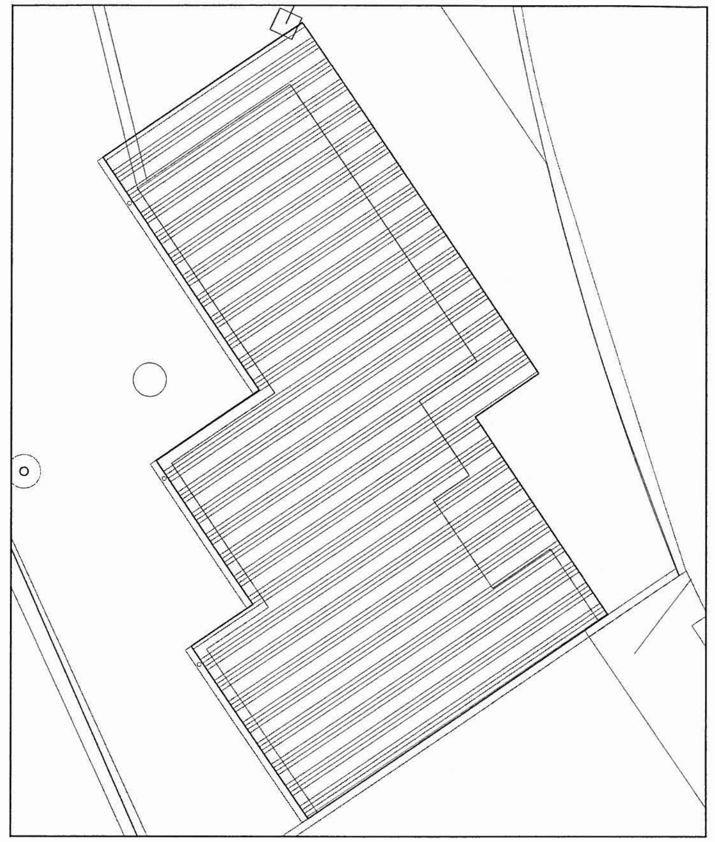
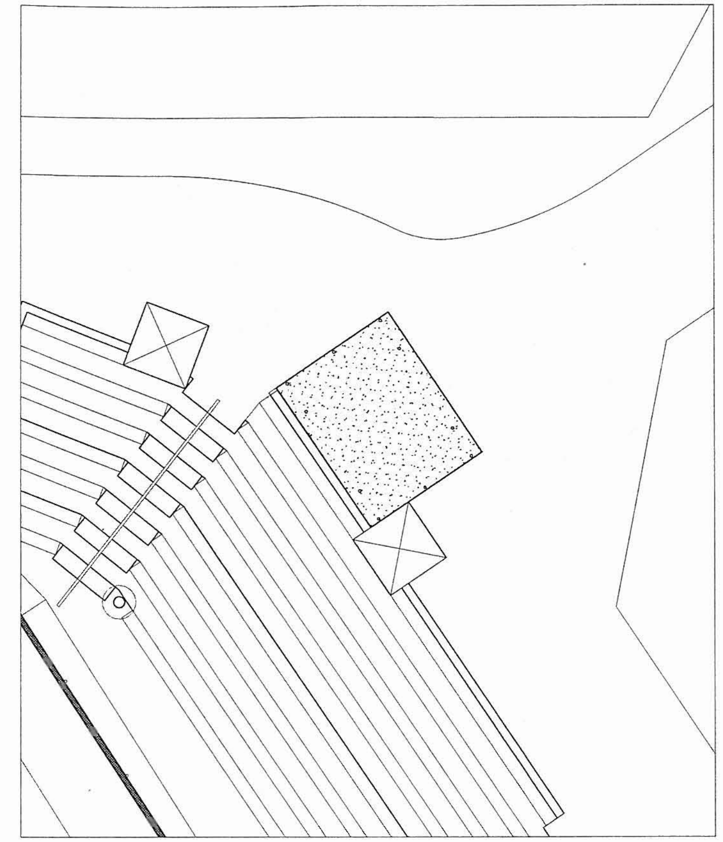
C. REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

FLOOR FINISH LEGEND

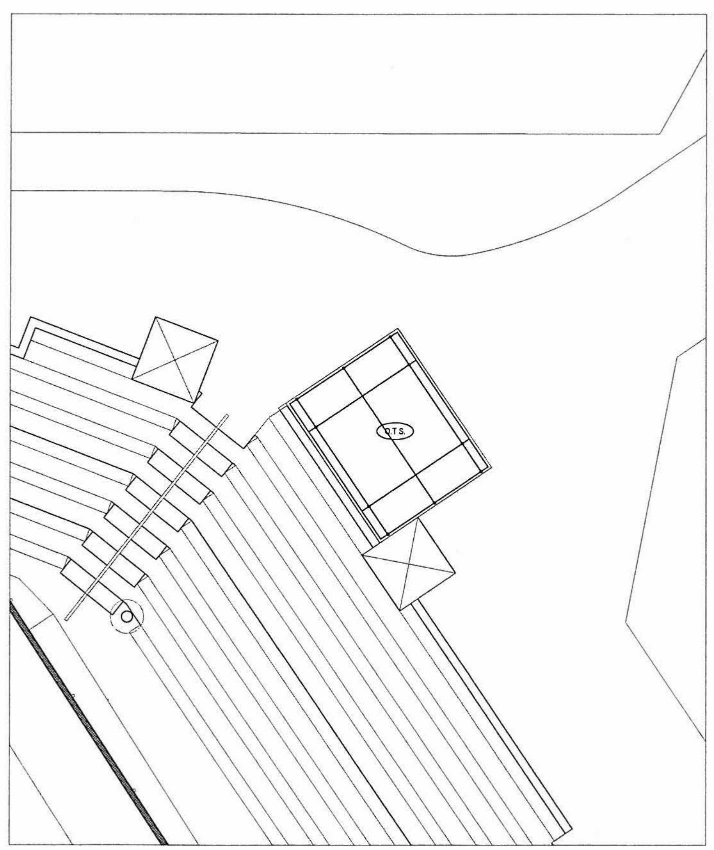
- SEALED CONCRETE



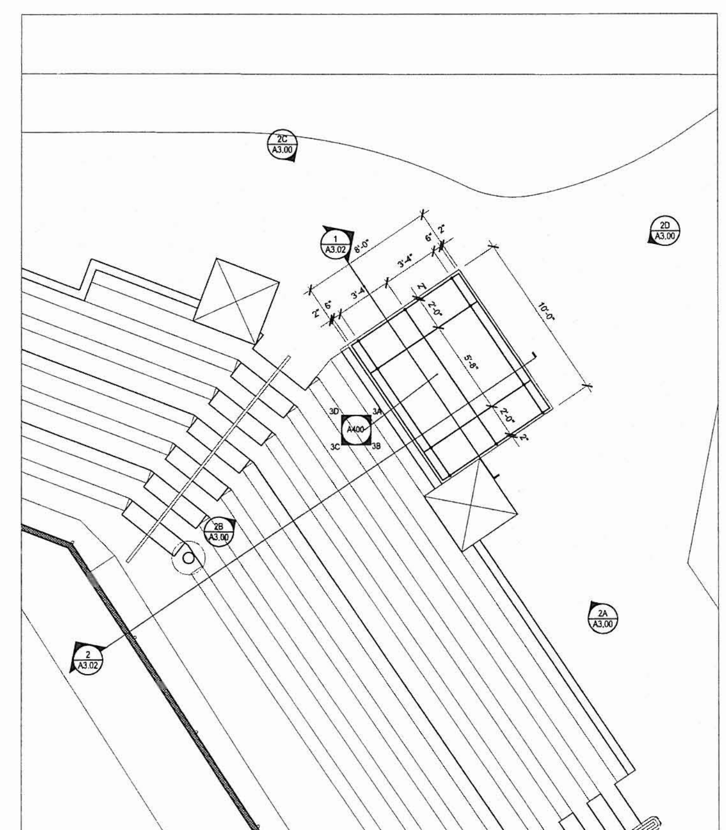
CONSESSION ROOF PLAN 4
SCALE:1/4" = 1'-0"



ANNOUNCER BOOTH FLOOR FINISHPLAN 3
SCALE:1/4" = 1'-0"



ANNOUNCER BOOTH RCP PLAN 2
SCALE:1/4" = 1'-0"



ANNOUNCER BOOTH PLAN 1
SCALE:1/4" = 1'-0"

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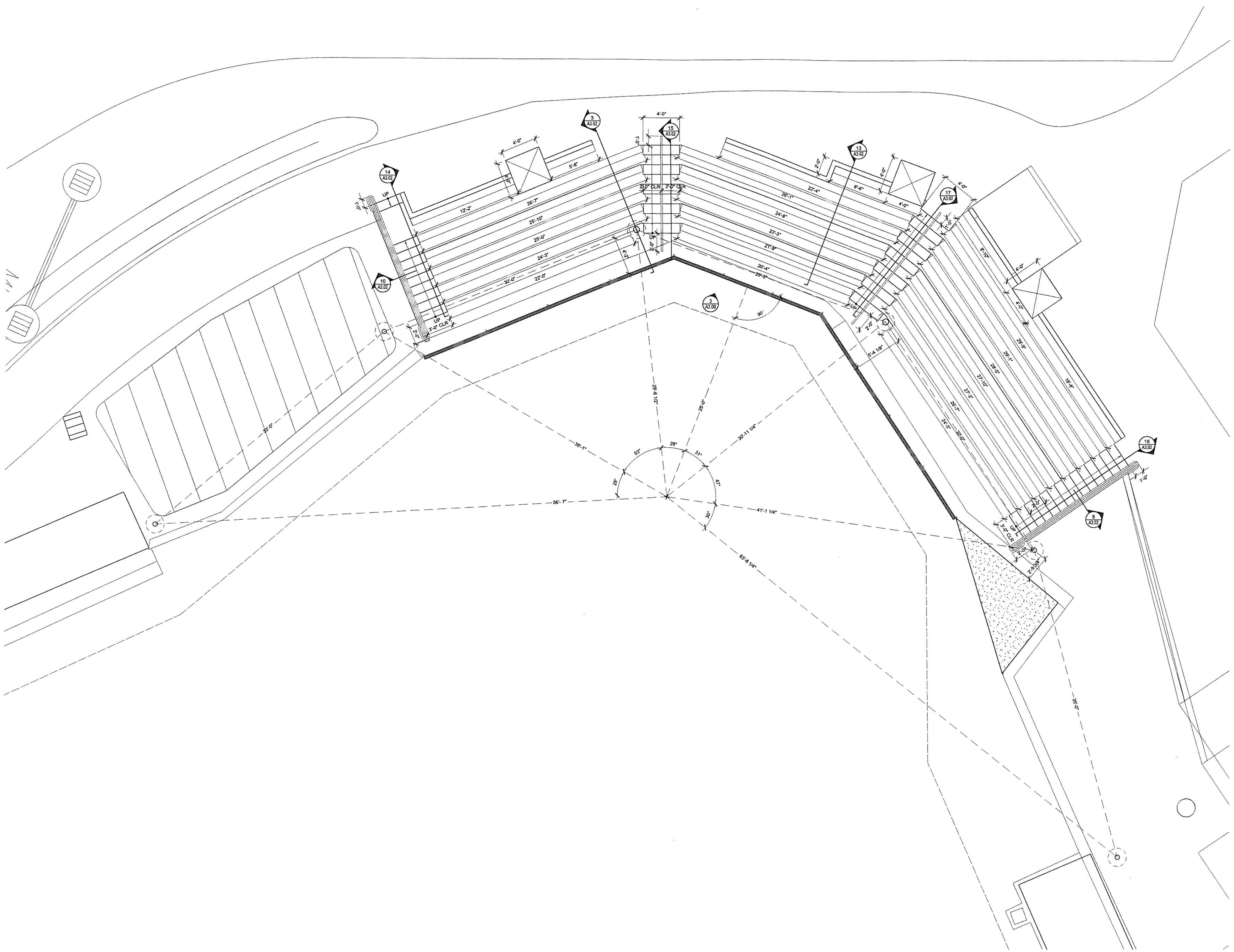
ANNOUNCER BOOTH PLANS

A201



BASEBALL SEATING PLAN 1

SCALE: 1/4"=1'-0"

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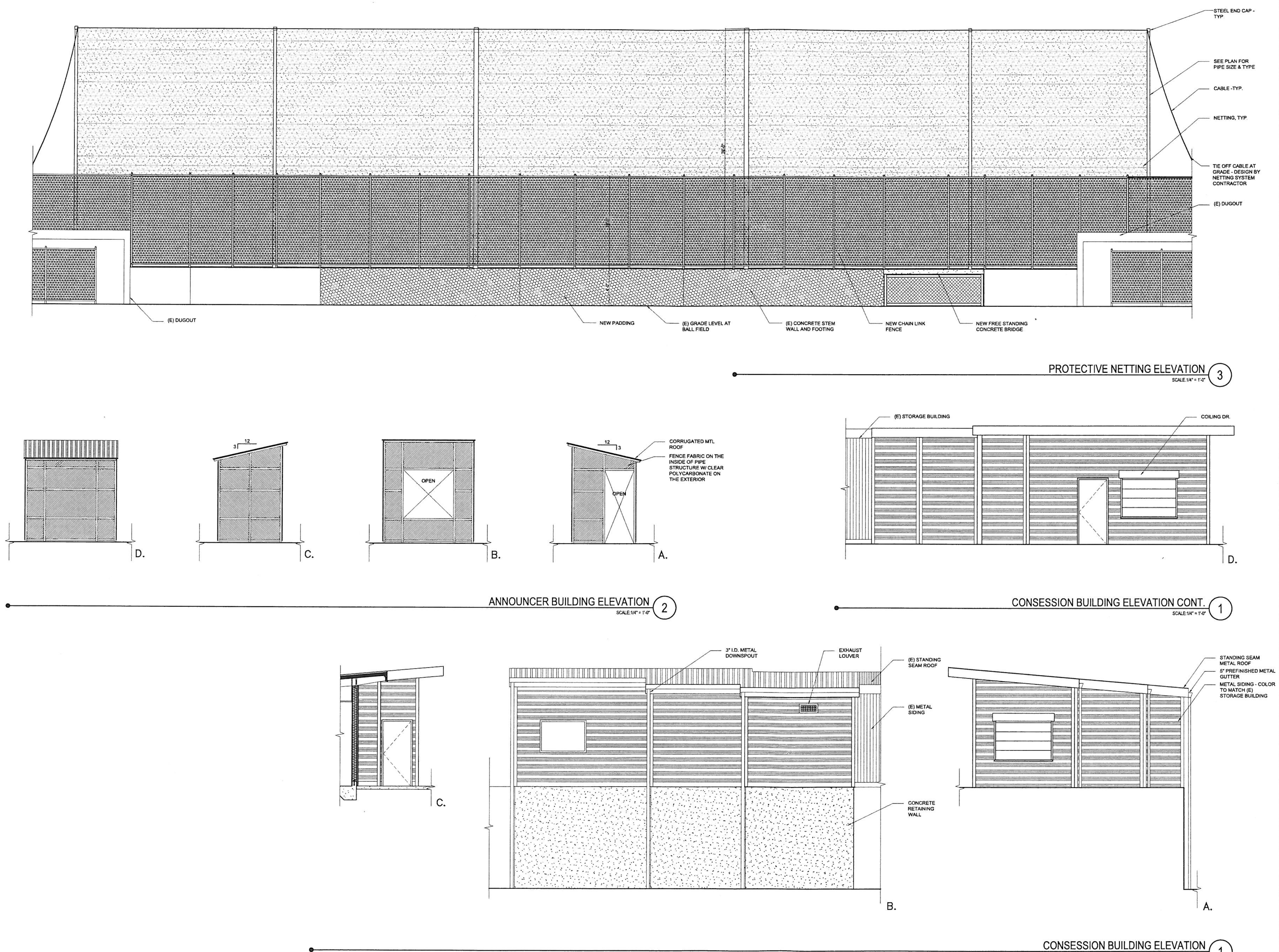
key plan

phase	design review
date	April 19, 2010
revisions	
project #	09001

SEATING PLAN

A202



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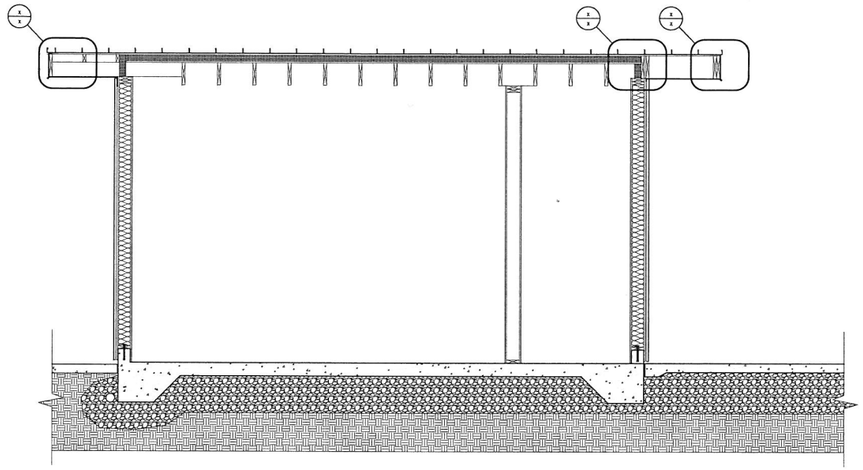
ELEVATION

A3.00



CONSESSION BUILDING SECTION 4
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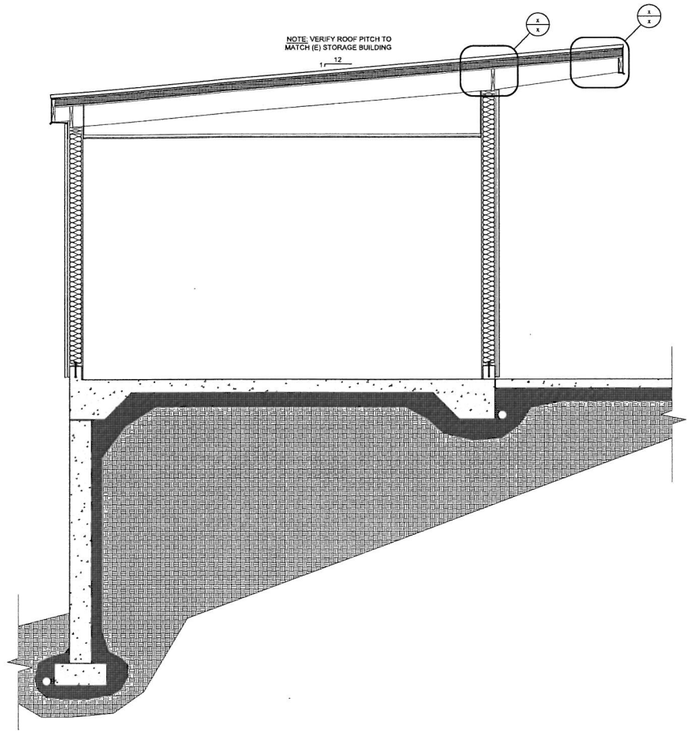

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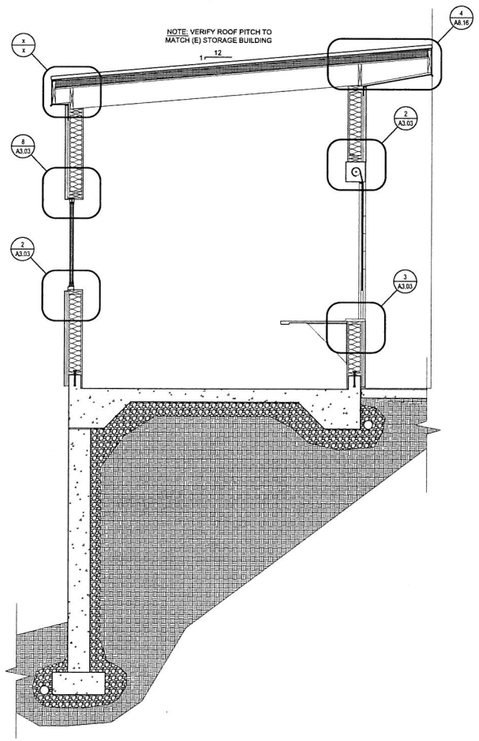

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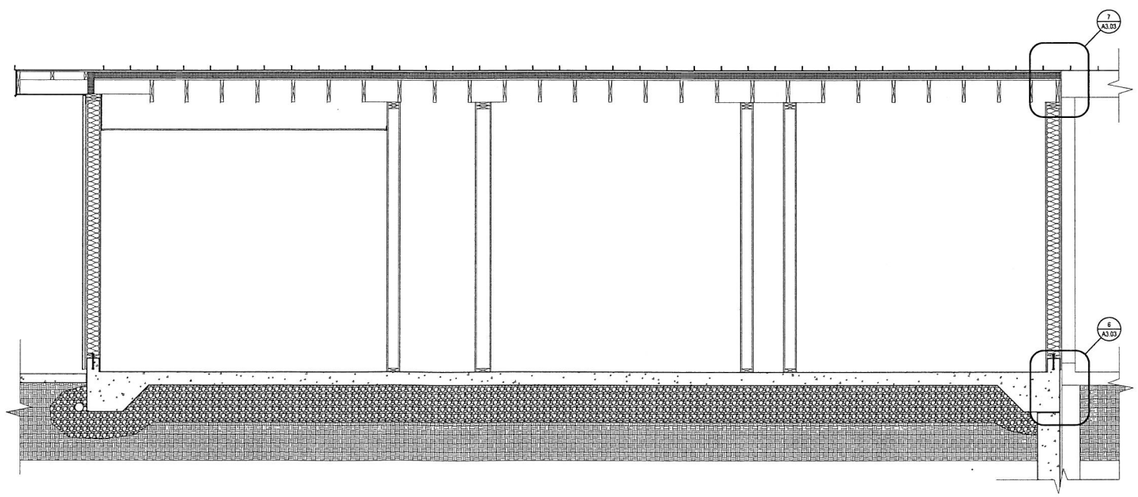

CONSESSION BUILDING SECTION 1
SCALE: 1/2" = 1'-0"

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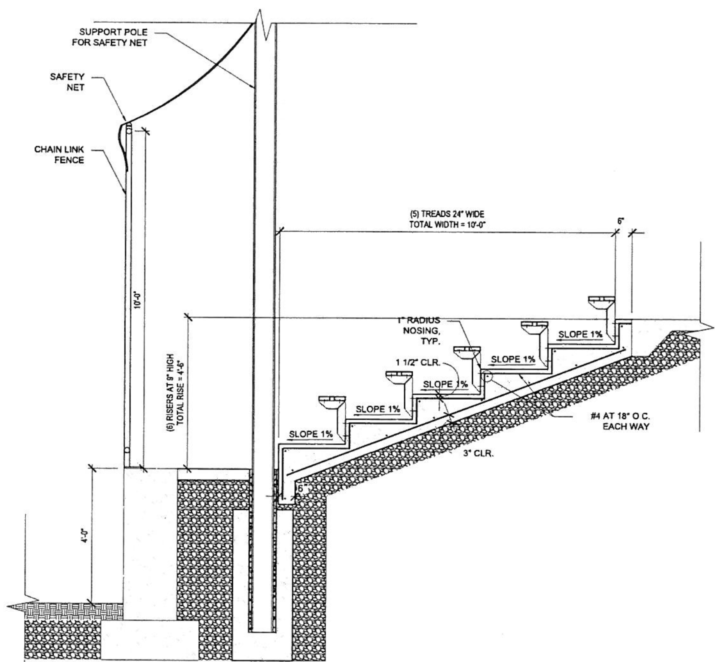
SECTION

A3.01



SEATING SECTION 3
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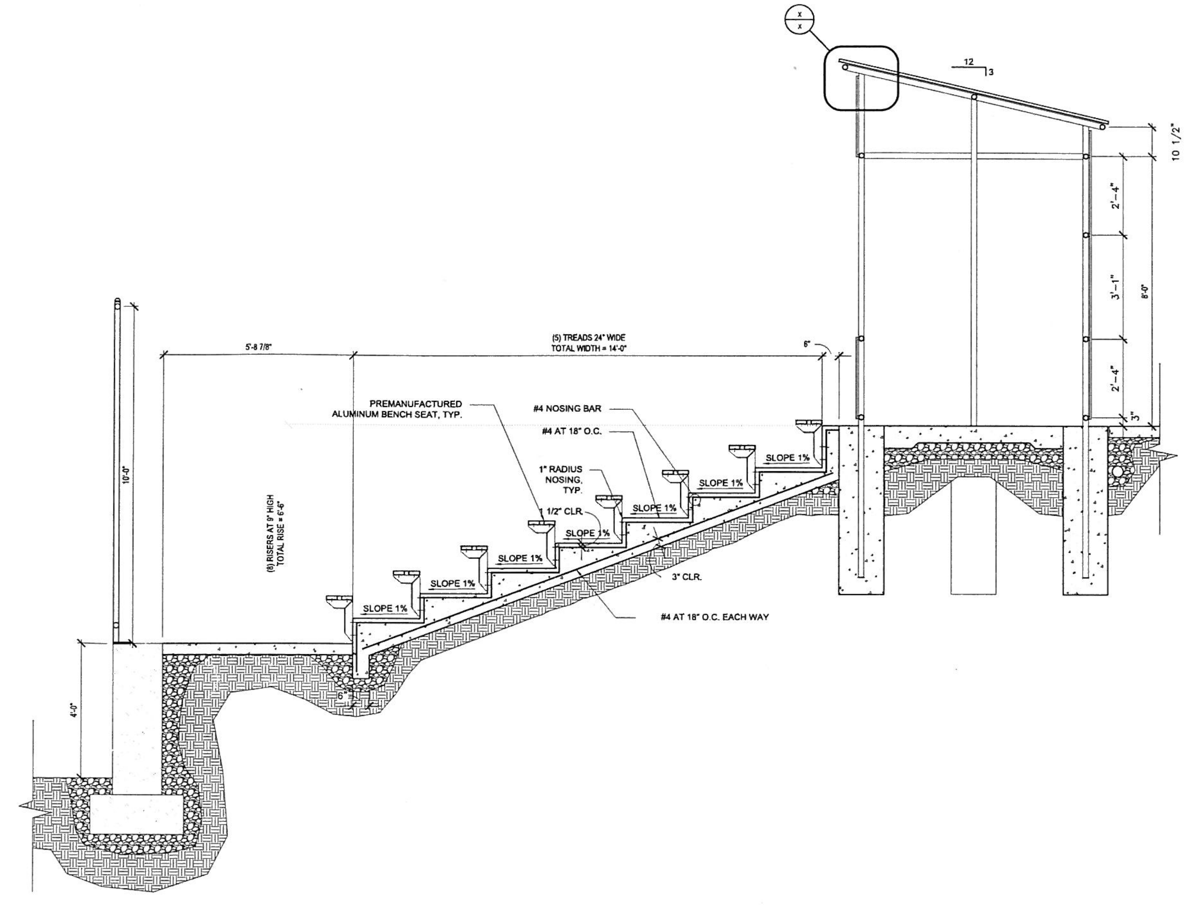
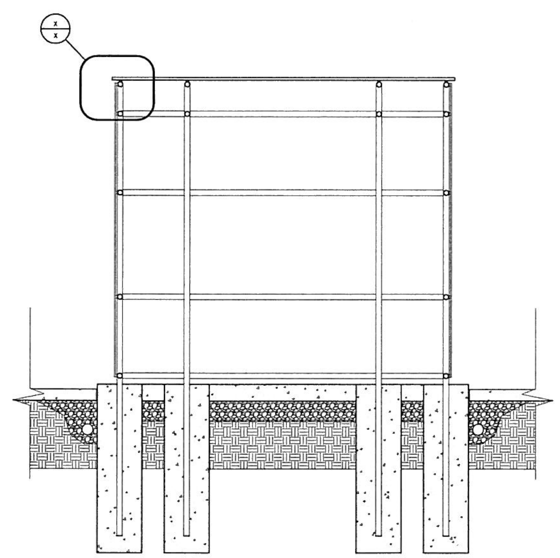


ANOUNCER BOOTH SECTION 2
SCALE: 1/2" = 1'-0"



ANOUNCER BOOTH SECTION 1
SCALE: 1/2" = 1'-0"

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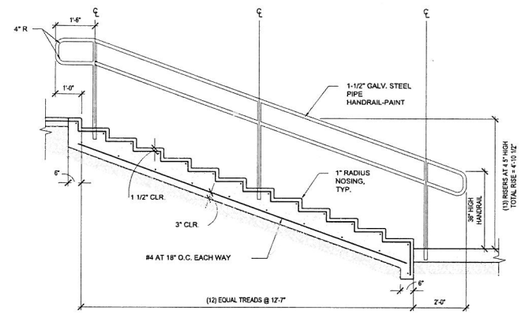
SECTION/ELEVATION DETAILS

A3.02



STAIR SECTION 17
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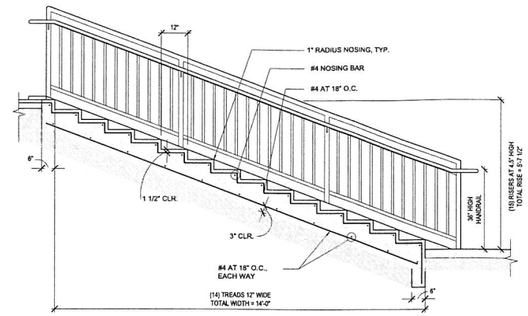

STAIR SECTION 16
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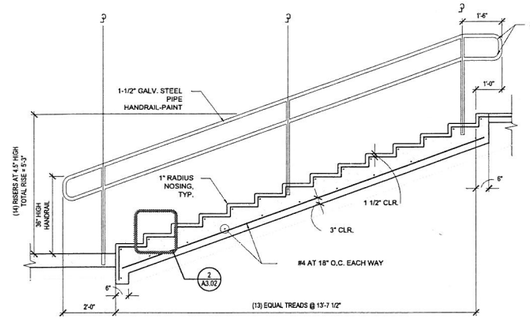
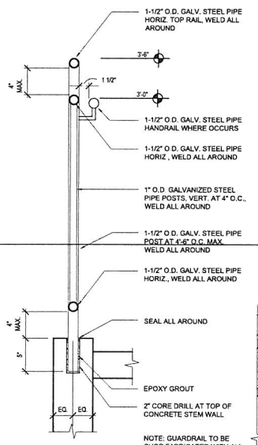
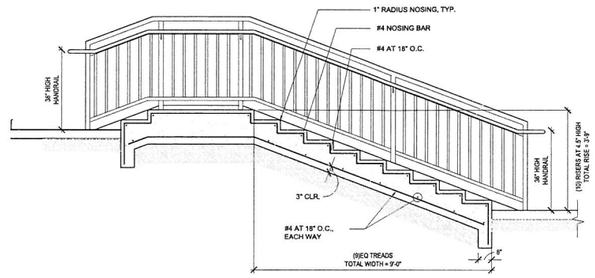


STAIR ELEVATION 15
SCALE:1/2" = 1'-0"



GUARD RAIL DETAIL 12
SCALE:1 1/2" = 1'-0"



STAIR SECTION 14
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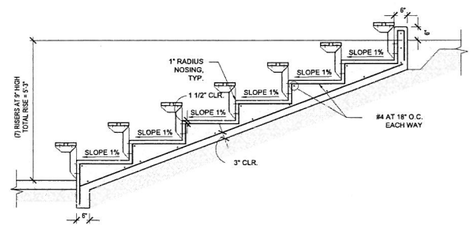
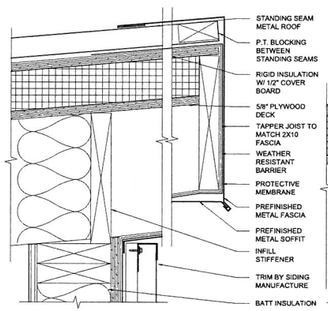
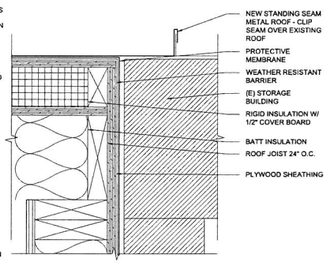


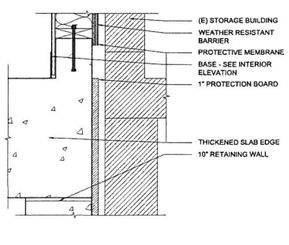
STAIR SECTION 13
SCALE:1/2" = 1'-0"



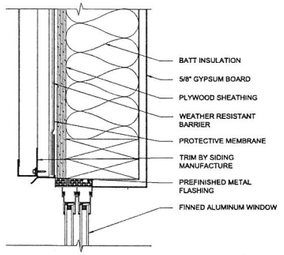
ROOF DETAIL 11
SCALE:3" = 1'-0"



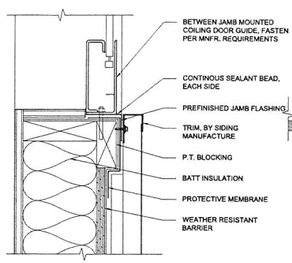
ROOF DETAIL 10
SCALE:3" = 1'-0"



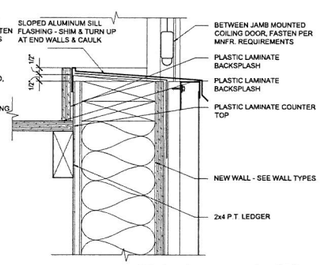
FOUNDATION DETAIL 9
SCALE:1 1/2" = 1'-0"



HEAD DETAIL 8
SCALE:3" = 1'-0"



STAIR NOSE DETAIL 6
SCALE:3" = 1'-0"



STAIR NOSE DETAIL 5
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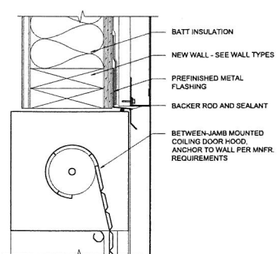
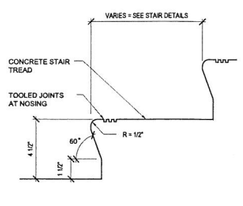


STAIR NOSE DETAIL 4
SCALE:3" = 1'-0"



STAIR NOSE DETAIL 3
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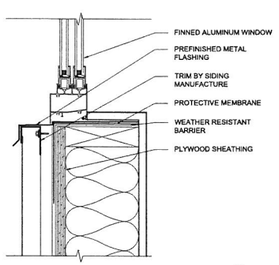

SILL DETAIL 2
SCALE:3" = 1'-0"

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revisions	

project # 09001

SECTION/ELEVATION DETAILS

A3.03

INTERIOR FINISH LEGEND:

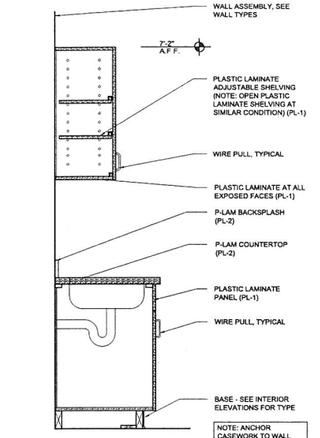
1. Vynle Composite Tile:
   VCT-1
2. Base:
   B-1 Rubber Base - Roppe P100 Black
3. Paint:
   P-1 General Walls & Ceilings -
   P-2 Hollow Metal Door & Frames -
4. Plastic Laminate:
   PL-1
   PL-2

DOOR SCHEDULE:

DOOR					FRAME	
NO.	SIZE	MATERIAL	FINISH	GLASS	MATERIAL	FINISH
A100A	3'-0"x7'-0"	Metal	Paint	--	Metal	Paint
A100B	2'-8"x7'-0"	Wood	Clear	--	Wood	Paint
A101A	3'-0"x7'-0"	Metal	Paint	--	Metal	Paint
A102A	3'-0"x7'-0"	Metal	Paint	--	Metal	Paint

WINDOW SCHEDULE:

WINDOW		FRAME		
NO.	SIZE	TYPE	MATERIAL	FINISH
A100C	6'-2"x4'-4"	Coiling	Metal	Factory
A100D	6'-2"x4'-4"	Coiling	Metal	Factory
A100E	5'-0"x3'-6"	Finned Aluminum	Aluminum	Anodized



CASEWORK SECTION 4
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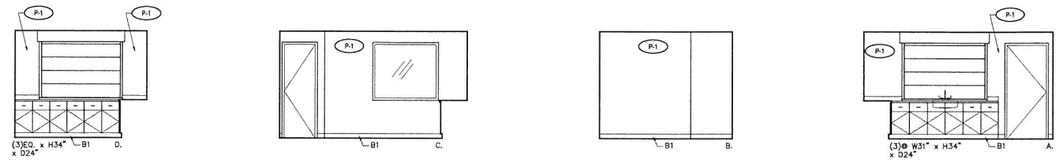
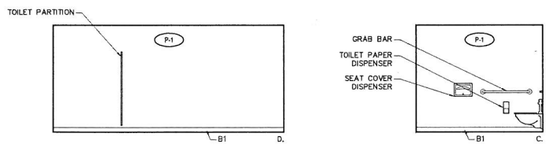
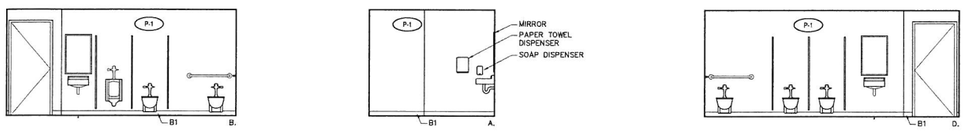


INTERIOR ELEVATION 3
SCALE: 1/4" = 1'-0"



INTERIOR ELEVATION 2
SCALE: 1/4" = 1'-0"



INTERIOR ELEVATION 2
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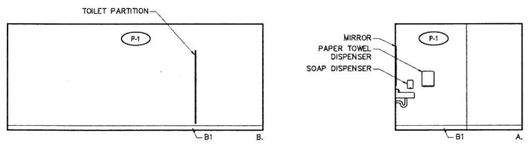
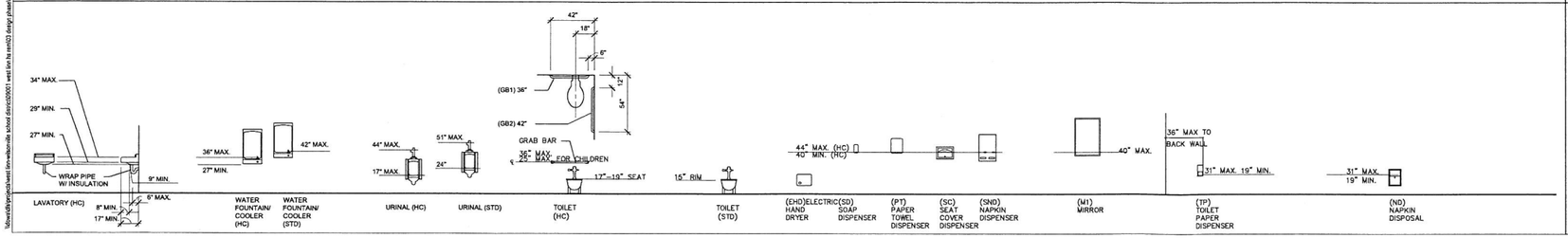


INTERIOR ELEVATION 1
SCALE: 1/4" = 1'-0"

STANDARD/CHILDRENS' MOUNTING HEIGHTS



NOTES

TOILET ROOM LAYOUT NOTES:

1. NO DOOR SWING INTO ANY CLEAR FLOOR AREA.
2. CLEAR FLOOR AREAS CAN OVERLAP.
3. FLOOR DRAINS CAN NOT BE IN ANY CLEAR FLOOR AREA.
4. CLEAR FLOOR AREAS & TURNING CIRCLE CAN OVERLAP.
5. WALL MOUNTED LAV MAY OVERLAP WATER CLOSET CLEAR FLOOR AREA 18" MAX. - SEE OSSC.
6. DOOR TO TOILET ROOM MAY ENCROACH INTO TURNING CIRCLE 12 MAX. IN ANY POSITION.
7. MAX. FLOOR SLOPE IS 2%.
8. ALL PLACEMENT DIMENSIONS ARE FROM FACE OF FINISHED SURFACE.

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INTERIOR ELEVATION

A400

GENERAL STRUCTURAL NOTES

STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THESE DRAWINGS INTO THEIR SHOP DRAWINGS AND WORK.

THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.

CODE REQUIREMENTS:
CONFORM TO THE 2007 OREGON STRUCTURAL SPECIALTY CODE (OSSC), BASED ON THE 2006 INTERNATIONAL BUILDING CODE (IBC).

TEMPORARY CONDITIONS:
THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.

CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

RETAINING WALLS ARE DESIGNED TO CANTILEVER WITH 250 PSF SUPERIMPOSED LOAD DURING BACKFILL

EXISTING CONDITIONS:
ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS SHALL BE FIELD VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SIGNIFICANT DISCREPANCIES FROM CONDITIONS SHOWN ON THE DRAWINGS.

ASSUMED FUTURE CONSTRUCTION:
VERTICAL: NONE
HORIZONTAL: NONE

DESIGN CRITERIA:
DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE OSSC. IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS AND ALLOWABLES WERE USED FOR DESIGN, WITH LIVE LOADS (L.L.) REDUCED PER OSSC:

DESIGN CRITERIA:

GRAVITY SYSTEM CRITERIA

ROOF LIVE/SNOW LOAD	25 PSF L.L. (ALSO SEE SNOW LOAD CRITERIA BELOW)	
FLOOR LIVE LOADS:	UNIFORM LOAD	CONCENTRATED LOAD
FLOOR	100 PSF L.L.	2,000 LBS
SIDEWALKS AND DRIVEWAYS	250 PSF L.L.	8,000 LBS
NOTES:	1. LIVE LOADS REDUCED PER OSSC. 2. MEMBER DESIGNED FOR MORE CRITICAL OF UNIFORM OR CONCENTRATED LOAD.	

SNOW CRITERIA

DESIGN ROOF SNOW LOAD	25 PSF MINIMUM IN ACCORDANCE WITH OSSC
SNOW DRIFT	PER OSSC AS SHOWN ON PLANS
GROUND SNOW LOAD	P_g= 10 PSF IN ACCORDANCE WITH 2007 SNOW LOAD ANALYSIS FOR OREGON
FLAT ROOF SNOW LOAD	P_f = 11 PSF
SNOW EXPOSURE FACTOR	C_e = 1.0
SNOW LOAD IMPORTANCE FACTOR	I = 1.1
THERMAL FACTOR	C_t = 1.0

GEOTECHNICAL CRITERIA

DESIGN BASED ON REPORT BY:	GEODESIGN, INC. DATED DECEMBER 31, 2007
RETAINING WALLS - CANTILEVERED	35 PCF (EQUIVALENT FLUID PRESSURE)
RETAINING WALLS - BRACED AT TOP	45 PCF (EQUIVALENT FLUID PRESSURE)
RETAINING WALLS - SEISMIC	30% INCREASE IN ABOVE EQUIVALENT FLUID PRESSURE (SEISMIC LATERAL EARTH PRESSURE)
ALLOWABLE SOIL PRESSURE:	
DIRECTLY ON BASALT	5,000 PSF
NATIVE SOIL	3,000 PSF
STRUCTURAL FILL	1,500 PSF *

* ASSUMED FOR DESIGN CONTRACTOR TO NOTIFY EOR IF OTHER CONDITION OCCURS.

WIND CRITERIA

BASIC WIND SPEED	
MAIN WIND FORCE RESISTING SYSTEM	95 MPH (3-SECOND GUST) PER ASCE 7-05 80 MPH (FASTEST MILE) PER 1998 OSSC
COMPONENTS AND CLADDINGS	95 MPH (3-SECOND GUST) PER ASCE 7-05
EXPOSURE	B
IMPORTANCE FACTOR	Iw = 1.0
GUST/INTERNAL PRESSURE	GCpi = +/- 0.18

DESIGN BASE SHEAR X DIRECTION = 8.1K Y DIRECTION = 3.3K

SEISMIC CRITERIA

OCCUPANCY CATEGORY	II	
SEISMIC DESIGN CATEGORY	D	
SITE CLASS	C	
IMPORTANCE FACTOR	I_E= 1.0	
MCE SPECTRAL ACCELERATION	S_S = 0.98	S_1 = 0.35
SITE COEFFICIENT	F_a = 1.01	F_v = 1.45
DESIGN SPECTRAL ACCELERATION	S_{DS} = 0.66	S_{D1} = 0.34
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PER ASCE 7-05, SECTION 12.8	
	X DIRECTION (E/W)	Y DIRECTION (N/S)
SEISMIC LATERAL RESISTING SYSTEM (SLRS)	LIGHT-FRAMED WALLS WITH PLYWOOD SHEAR WALLS	LIGHT-FRAMED WALLS WITH PLYWOOD SHEAR WALLS
RESPONSE MODIFICATION FACTOR	R = 6½	R = 6½
SEISMIC RESPONSE COEFFICIENT	C_s = 0.132	C_s = 0.132
DESIGN BASE SHEAR	1K	1K
REDUNDANCY FACTOR	rho = 1.0	rho = 1.0
DESIGN INELASTIC STORY DRIFT	Δ = 1.00"	Δ = 1.00"

DESIGN AND DETAILING WAS BASED ON CRITERIA FOR SEISMIC DESIGN CATEGORY D, EXCEPT...

SEISMIC LOAD RESISTING SYSTEM:
THE SEISMIC LOAD RESISTING SYSTEM (SLRS) FOR THE COMPLETED STRUCTURE IS AS FOLLOWS:

PLYWOOD ROOF DIAPHRAGM AND PLYWOOD SHEAR WALLS OVER WOOD STUDS.

REFERENCE SHEETS S3.1 FOR SLRS DETAILS. REFERENCE PLANS FOR ADDITIONAL SLRS COMPONENTS AND DETAILS.

STRUCTURAL OBSERVATION:
THE STRUCTURAL ENGINEER OF RECORD (SER) WILL PERFORM STRUCTURAL OBSERVATION BASED ON THE REQUIREMENTS OF THE OSSC AT THE STAGES OF CONSTRUCTION LISTED BELOW. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SER TO PERFORM THESE OBSERVATIONS.

STRUCTURAL OBSERVATION PROGRAM

ITEM	OBSERVED BY (2)		COMMENTS
	AOR	SER	
PRIOR TO FIRST CONCRETE POUR		X	REF. NOTES 1, 3, 4, 5
DURING PLYWOOD NAILING		X	REF. NOTES 1, 3, 4
AS REQUIRED TO ADDRESS STRUCTURAL ISSUES		X	REF. NOTES 1, 3, 4

PROGRAM FOOTNOTES:

1. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SER IN ADVANCE.
2. SER - STRUCTURAL ENGINEER OF RECORD.
   AOR - ARCHITECT OF RECORD.
3. A FIELD REPORT WILL BE SUBMITTED TO THE BUILDING DEPARTMENT FOLLOWING EACH SITE VISIT.
4. STRUCTURAL OBSERVATION IS FOR THE GENERAL CONFORMANCE OF THE STRUCTURAL DRAWING, SPECIAL INSPECTION IS STILL REQUIRED.
5. AFTER REINFORCING STEEL HAS BEEN INSTALLED.

SPECIAL INSPECTION:
SPECIAL INSPECTION WILL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE OSSC AS SUMMARIZED IN THE SPECIAL INSPECTION PROGRAM ON SHEET S00X. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

SUBMITTALS:
SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION OF ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:

ITEM	SUBMITTALS (1, 4)	DEFERRED SUBMITTALS (2, 4)	COMMENTS
CONCRETE MIX DESIGNS	X		
CONCRETE REINFORCEMENT	X		
MASONRY REINFORCEMENT	X		
CONCRETE ANCHORAGES	X		
EMBEDDED STEEL ITEMS	X	X	
STAIRS AND RAILINGS	X	X	

FOOTNOTES:
1. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION OF STRUCTURAL ITEMS. IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE STRUCTURAL ENGINEER.
2. DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE OSSC AND AS NOTED UNDER "DESIGN CRITERIA".
3. THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. CONNECTIONS TO STRUCTURE SHALL CONFORM TO ASCE 7-05 CHAPTER 13, BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.
4. FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

CONCRETE:
CONCRETE WORK SHALL CONFORM TO CHAPTER 19 OF THE OSSC. CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, AND SHALL BE AS FOLLOWS:

f'_c (PSI)	ABSOLUTE WATER-CEMENT RATIO BY WEIGHT NON AIR-ENTRAINED	AIR-ENTRAINED	USE
4,000	.50	.45	FOOTINGS, SLAB ON GRADE, WALLS AND ALL USES, U.N.O.

VERIFY WATER/CEMENT RATIO WITH FLOOR COVERING MANUFACTURER FOR CONCRETE FLOORS WITH MOISTURE SENSITIVE FLOOR COVERINGS.

MINIMUM CEMENT CONTENT PER CUBIC YARD SHALL BE AS FOLLOWS:

f'_c (PSI)	MINIMUM CEMENT PER CUBIC YARD
4,000	550 LBS.

FLYASH CONFORMING TO ASTM C618 (INCLUDING TABLE 2A) TYPE F OR TYPE C, MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA COMPLIANT WITH OSSC SECTION 1905, A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE. NO WATER MAY BE ADDED TO CONCRETE IN THE FIELD UNLESS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER IN CONJUNCTION WITH THE CONCRETE MIX DESIGN.

A WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494, USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, SHALL BE INCORPORATED IN CONCRETE DESIGN MIXES. A HIGH-RANGE WATER-REDUCING (HRWR) ADMIXTURE CONFORMING TO ASTM C494, TYPE F OR G, MAY BE USED IN CONCRETE MIXES PROVIDING THAT THE SLUMP DOES NOT EXCEED 10". AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260 SHALL BE USED IN CONCRETE MIXES FOR EXTERIOR HORIZONTAL SURFACES EXPOSED TO WEATHER. THE AMOUNT OF ENTRAINED AIR SHALL BE 5% ± 1% BY VOLUME.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER.

WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED OTHERWISE.

VERIFY ALL BLOCKOUTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING REQUIREMENTS.

SHORING AND RESHORING:
SHORING AND RESHORING DESIGN IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL CONFORM TO ACI 347R-05. IN ADDITION, SHORING SHALL NOT BE REMOVED SOONER THAN THE FOLLOWING:

ELEMENT	MINIMUM REMOVAL TIME	COMMENTS
WALLS	12 HR. CUMULATIVE WITH 50° F SURROUNDING TEMPERATURE	WHERE FORMS ALSO SUPPORT FORMWORK FOR SLAB OR SOFFITS, THE REMOVAL TIME OF THE LATTER GOVERNS.

REINFORCING STEEL:
REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, FOR DEFORMED BARS, UNLESS OTHERWISE NOTED. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE.

BARS IN SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES." ACI 315. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS OF ALL BEAMS AND COLUMNS SHOWING BAR LOCATIONS. LAP ALL REINFORCING BARS PER THE TYPICAL LAP SPLICE LENGTH SCHEDULE, EXCEPT AS NOTED. USE LAP LENGTH FOR SMALLER BAR WHEN SPLICING DIFFERENT BAR SIZES.

TYPICAL WALL AND SLAB LAP SLICE LENGTH SCHEDULE (IN.)
(DOES NOT APPLY TO VERTICAL SHEAR WALL BOUNDARY REINFORCEMENT)

BAR SIZE	4000 P.S.I. CASE 1	CASE 2
#3	16	16
#4	20	18
#5	28	24
#6	37	28
#7	60	40
#8	74	46
#9	90	57
#10	108	70
#11	127	83

NOTES:
1. CASE 1 APPLIES TO BAR WITH CLEAR COVER < 1 1/2".
   CASE 2 APPLIES TO BAR WITH CLEAR COVER ≥ 1 1/2".
2. FOR CENTER-TO-CENTER SPACING LESS THAN 4db MULTIPLY LAP LENGTHS ABOVE BY 1.3.
3. FOR TOP BARS, CAST ABOVE 12" OF CONCRETE, MULTIPLY LAP LENGTHS ABOVE BY 1.3.

REINFORCING STEEL SHALL HAVE PROTECTION AS FOLLOWS:

USE	COVER
SLAB BARS	1"
WALL BARS: INTERIOR FACES	3/4 "
EXPOSED TO EARTH OR WEATHER	1-1/2" (#5 AND SMALLER) 2" (#6 AND LARGER)
FOOTING BARS	3"

CONCRETE WALL REINFORCING (UNLESS OTHERWISE NOTED):

WALL THICKNESS	HORIZONTAL BARS	VERTICAL BARS	LOCATION
6"	#4 @ 16" O.C.	#4 @ 16" O.C.	AT CL OF WALL
8"	#4 @ 12" O.C.	#4 @ 16" O.C.	AT CL OF WALL
10"	#4 @ 18" O.C.	#4 @ 18" O.C.	AT EACH FACE
12"	#4 @ 16" O.C.	#4 @ 16" O.C.	AT EACH FACE

CONCRETE REINFORCING DETAILS:
CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS, COLUMNS AND INTERSECTING WALLS. SLAB BARS SHALL BE HOOKED INTO WALLS, OR HOOKED DOWELS SHALL BE PROVIDED TO MATCH SLAB REINFORCING. PROVIDE TWO #4, 4'-0" LONG DIAGONALLY AT EACH RE-ENTRANT CORNER IN SLABS. PROVIDE HOOKED DOWELS FROM FOOTINGS TO MATCH VERTICAL WALL REINFORCING.

CONCRETE ACCESSORIES:
EXPANSION BOLTS SHALL BE HILTI KWIK BOLT TZ, SIMPSON STRONG-BOLT, OR APPROVED WITH EQUAL ICC ALLOWABLE TENSION AND SHEAR VALUES. EXPANSION BOLTS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION.

EPOXY ADHESIVE SHALL BE HILTI HIT-RE 500-SD OR APPROVED WITH EQUAL ICC ALLOWABLE TENSION AND SHEAR VALUES. EPOXY ADHESIVE SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION.

PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED, GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED. NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING.

SAWN LUMBER:
SAWN LUMBER SHALL CONFORM TO WEST COAST LUMBER INSPECTION BUREAU OR WESTERN WOOD PRODUCTS ASSOCIATION GRADING RULES. LUMBER SHALL BE KILN DRIED AND BE THE SPECIES AND GRADE NOTED BELOW:

USE	SPECIES/GRADE	Fb (PSI) (BASE VALUE)
DIM. LUMBER 2" TO 4" THICK POSTS	DOUGLAS FIR-LARCH NO. 2 DOUGLAS FIR-LARCH NO. 1	900 1200

ALL LUMBER IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED, UNLESS AN APPROVED MOISTURE BARRIER IS PROVIDED. FRAMING ACCESSORIES AND STRUCTURAL FASTENERS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE (OR APPROVED EQUAL) AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. ALL NAIL HOLES SHALL BE FILLED WITH STRUCTURAL FASTENERS, UNLESS NOTED OTHERWISE ON THE DRAWINGS AND FASTENERS SHALL BE INSTALLED FOLLOWING ALL MANUFACTURERS REQUIREMENTS. IF A SUBSTITUTION IS MADE, A DOCUMENT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL OUTLINING THE FRAMING ACCESSORIES BEING REPLACED AND THE SUBSTITUTED FRAMING ACCESSORIES. ALLOWABLE LOADS FOR THE SIMPSON ACCESSORIES SHALL BE TABULATED ALONG WITH ALLOWABLE LOADS FOR THE SUBSTITUTED ACCESSORIES, WHICH CLEARLY INDICATE THE SUBSTITUTED ACCESSORIES HAVING AN EQUAL OR GREATER CAPACITY. HANGERS NOT SHOWN SHALL BE SIMPSON U-TYPE OR B-TYPE OF SIZE RECOMMENDED FOR THE MEMBER.

ALL FRAMING NAILS SHALL BE OF THE SIZE AND NUMBER INDICATED ON THE DRAWINGS AND CONFORM TO ASTM F 1667, "STANDARD SPECIFICATION OF DRIVEN FASTENERS: NAILS, SPIKES, AND STAPLES AND NER-272 "POWER-DRIVEN STAPLES AND NAILS FOR USE IN ALL TYPES OF BUILDING CONSTRUCTION." NAILS SHALL BE IDENTIFIED BY LABELS (ATTACHED TO THEIR CONTAINERS) THAT SHOW THE MANUFACTURER'S NAME AND NES REPORT NUMBER, NAIL SHANK DIAMETER, AND LENGTH AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FRAMING. NAILING NOT SHOWN SHALL BE AS INDICATED ON OSSC TABLE 2304.9.1 OR NER-272. THE FOLLOWING NAIL SIZES SHALL BE USED:

NAIL TYPE (COMMON, U.N.O.)	SHANK DIAMETER (IN.)	MINIMUM PENETRATION INTO FRAMING MEMBER (in.)
6	0.113	1.25
8	0.131	1.5
10	0.148	1.625
12	0.148	1.625
16d (BOX)	0.135	1.625

BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. ALL BOLTS AND LAG SCREWS SHALL BE INSTALLED WITH STANDARD CUT WASHERS. ALL A307 BOLTS SHALL HAVE CUT THREADS.

CUTTING AND NOTCHING OF JOISTS AND STUDS SHALL CONFORM TO OSSC SECTIONS 2308.8.2, 2308.9.10 AND 2308.10.4.2.

SALVAGED LUMBER SHALL BE GRADED BY AN APPROVED GRADING AGENCY PRIOR TO USE AND SHALL MEET THE MINIMUM BENDING STRESSES SHOWN ABOVE.

WOOD STRUCTURAL PANELS:
WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS OF "U.S. PRODUCT STANDARD PS 1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD", "U.S. PRODUCT STANDARD PS 2 PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL-USE PANELS", OR "APA PRP-108 PERFORMANCE STANDARDS", UNLESS NOTED, PANELS SHALL BE APA RATED SHEATHING, EXPOSURE 1, OF THE THICKNESS AND SPAN RATING SHOWN ON THE DRAWINGS.

WOOD STRUCTURAL PANEL INSTALLATION SHALL BE IN CONFORMANCE WITH APA RECOMMENDATIONS. ALLOW 1/8" SPACING AT PANEL ENDS AND EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.

ALL ROOF SHEATHING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS, EXCEPT AS INDICATED ON THE DRAWINGS. SHEAR WALL SHEATHING SHALL BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY AND BE BLOCKED WITH 2x FRAMING AT ALL PANEL EDGES. NAILING NOT SHOWN SHALL BE AS INDICATED ON OSSC TABLE 2304.9.1. ALL NAILS SHALL BE COMMON NAILS, U.N.O., EXCEPT USE RING SHANK FOR ROOF SHEATHING.

WOOD STRUCTURAL PANEL SHEAR WALLS:
SHEAR WALL SHEATHING TO BE PLYWOOD OR OSB PANELS CONFORMING TO THE REQUIREMENTS FOR ITS TYPE SPECIFIED IN DOC PS1 OR PS2. SHEATHING SHALL BE APPLIED EITHER HORIZONTALLY OR VERTICALLY. SHEET SIZES SHALL BE 4x8 UNLESS AT BOUNDARIES OR FRAMING CHANGES.

NAIL HEADS SHALL BE DRIVEN FLUSH WITH SHEATHING. DO NOT PENETRATE SURFACE PLY WITH NAIL HEADS. IF NAIL HEADS ARE NOT FLUSH NOTIFY E.O.R.

ALL SHEAR WALL PANEL SHEATHING EDGES SHALL BE BLOCKED. EDGE NAILS SHALL BE AT LEAST 3/8" FROM EDGES AND ENDS OF PANELS. STAGGER NAILING ON EDGES.

ABBREVIATIONS

A.B.	ANCHOR BOLT	L.L.	LIVE LOAD
ACI	AMERICAN CONCRETE INSTITUTE	LOC.	LOCATION
ADD'L.	ADDITIONAL	LONG.	LONGITUDINAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION INCORPORATED	MAX.	MAXIMUM
		MECH.	MECHANICAL
ALT.	ALTERNATE	MFR.	MANUFACTURER
ARCH.	ARCHITECT	MIN.	MINIMUM
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	MISC.	MISCELLANEOUS
		(N)	NEW
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	N.I.C.	NOT IN CONTRACT
		NOM.	NOMINAL
AWS	AMERICAN WELDING SOCIETY	NO.	NUMBER
BLDG.	BUILDING	N.T.S.	NOT TO SCALE
BOT.	BOTTOM	o.c.	ON CENTER
C.G.	CENTER OF GRAVITY	O.D.	OUTSIDE DIAMETER
C.I.P.	CAST IN PLACE	OPP.	OPPOSITE
C.J.	CONTROL JOINT	PART.	PARTITION
C.J.P.	COMPLETE JOINT PENETRATION	PCF	POUNDS PER CUBIC FOOT
CL	CENTERLINE	PERIM.	PERIMETER
CLR.	CLEAR	PL	PLATE
CMU	CONCRETE MASONRY UNIT	P.P.	PARTIAL PENETRATION
COL.	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONC.	CONCRETE	PSI	POUNDS PER SQUARE INCH
CONN.	CONNECTION	P.T.	PRESSURE TREATED
CONST.	CONSTRUCTION	PVC	POLYVINYL CHLORIDE
CONT.	CONTINUOUS	R, RAD.	RADIUS
DET.	DETAIL	REF.	REFERENCE
DIA., Ø	DIAMETER	RET.	RETURN
DIAG.	DIAGONAL	REINF.	REINFORCING
D.L.	DEAD LOAD	REQ'D.	REQUIRED
DWG.	DRAWING	REQ'MTS.	REQUIREMENTS
ELEC.	ELECTRICAL	SCHED.	SCHEDULE
EL.	ELEVATION	SIM.	SIMILAR
EQ.	EQUAL	SLRS	SEISMIC LOAD RESISTING SYSTEM
EXIST.,(E)	EXISTING	S.O.G.	SLAB ON GRADE
EXP.	EXPANSION	SPEC.	SPECIFICATION
EXT.	EXTERIOR	SQ.	SQUARE
FDN.	FOUNDATION	SS	STAINLESS STEEL
FIN.	FINISH	STD.	STANDARD
FLR.	FLOOR	STRUCT.	STRUCTURAL
FT.	FOOT	SYM.	SYMMETRICAL
FTG.	FOOTING	THRU	THROUGH
GA.	GAUGE	TRANS.	TRANSVERSE
GALV.	GALVANIZED	TYP	TYPICAL
HORIZ.	HORIZONTAL	U.N.O.	UNLESS NOTED OTHERWISE
IBC	INTERNATIONAL BUILDING CODE	VERT.	VERTICAL
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	w/	WITH
		WF	WIDE FLANGE
ICC	INTERNATIONAL CODE COUNCIL	w/o	WITHOUT
I.D.	INSIDE DIAMETER	W.P.	WORK POINT
IN.	INCH	WWF	WELDED WIRE FABRIC
INT.	INTERIOR		
K	KIPS		
KSF	KIPS PER SQUARE FOOT		
KSI	KIPS PER SQUARE INCH		
LB.	POUND		

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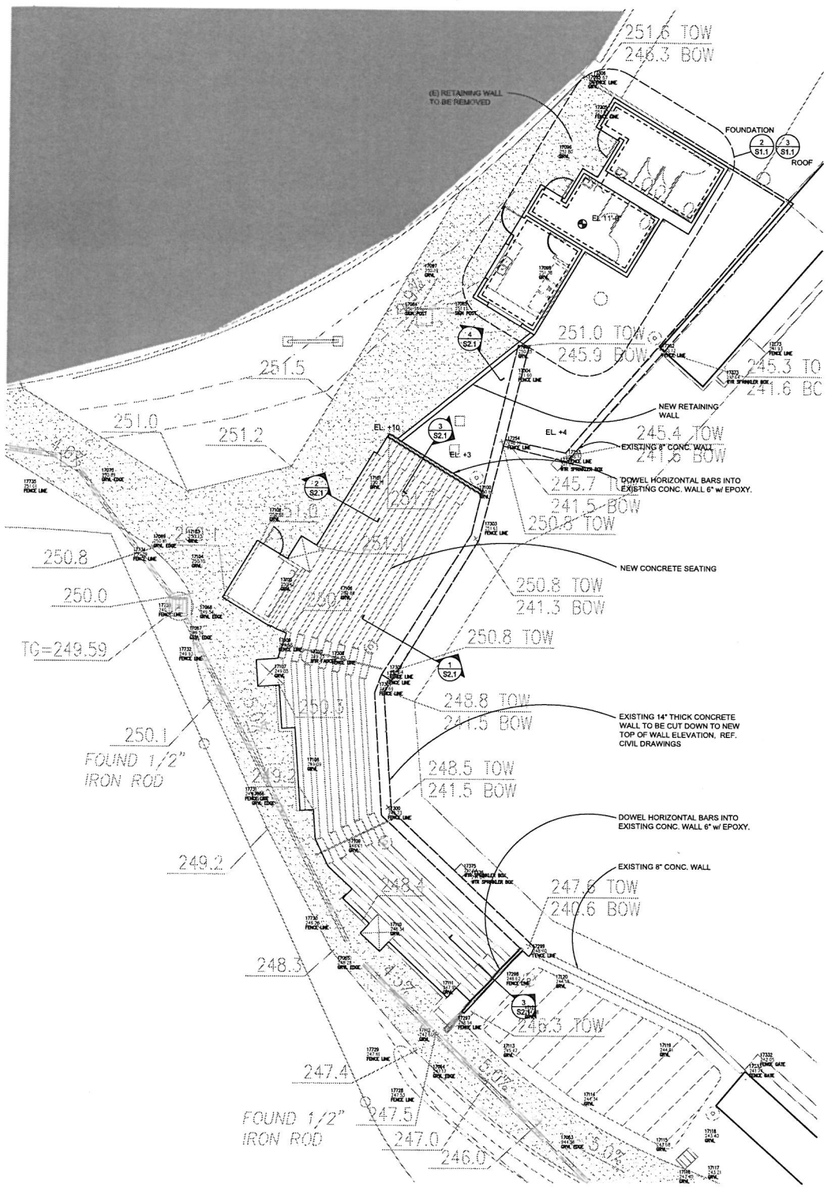
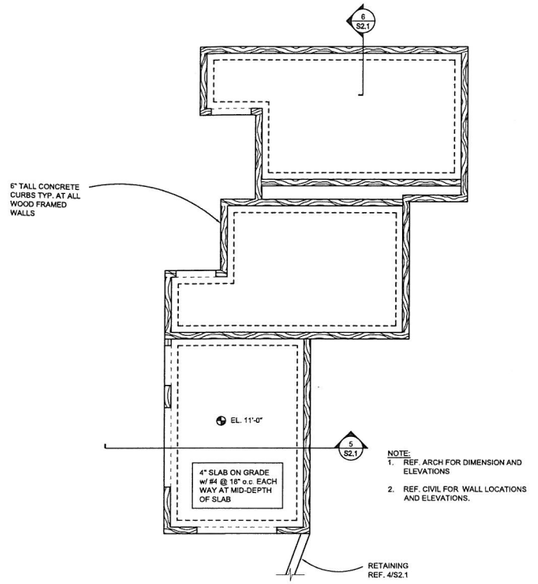
revisions	
project #	209614

General Structural Notes

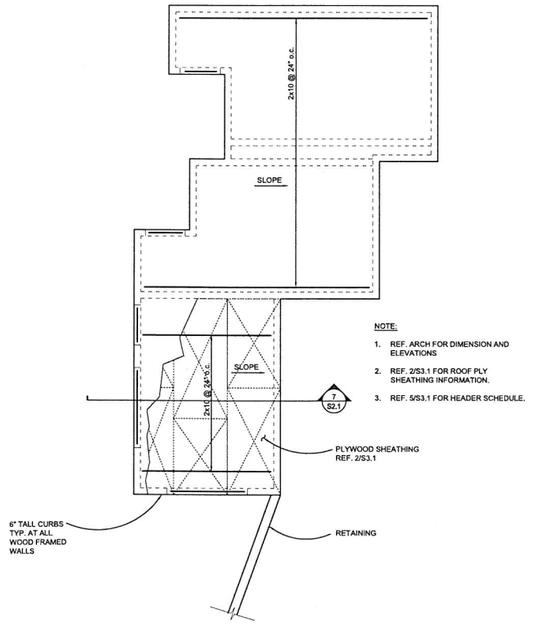
S0.2



a PARTIAL PLAN
1/8"=1'-0"



2 CONSESSION BUILDING FOUNDATION PLAN
1/4"=1'-0"



3 CONSESSION BUILDING ROOF PLAN
1/4"=1'-0"

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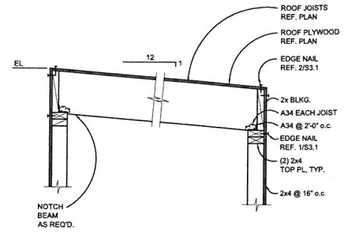
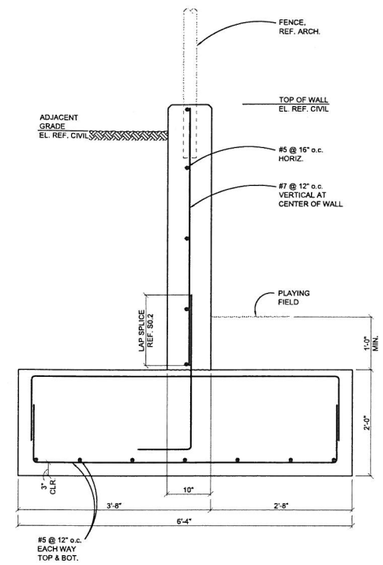
SITE PLAN AND FRAMING PLANS

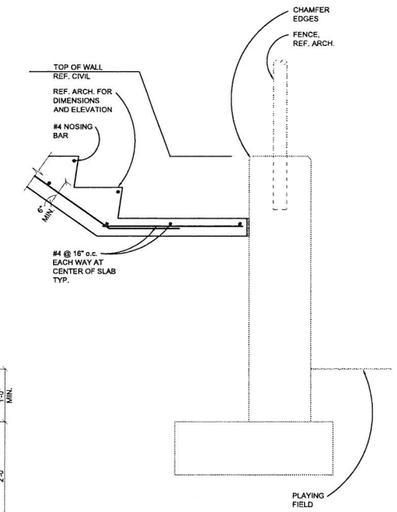
S1.1



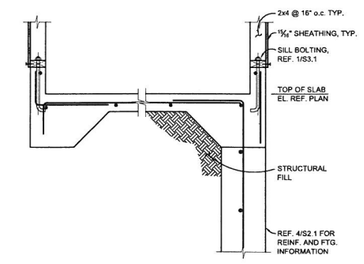
7 ROOF SECTION
1"=1'-0" S1.1



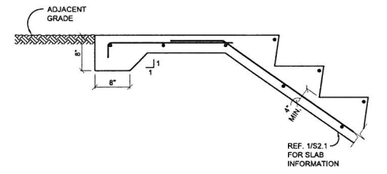
4 RETAINING WALL
1"=1'-0" S1.1



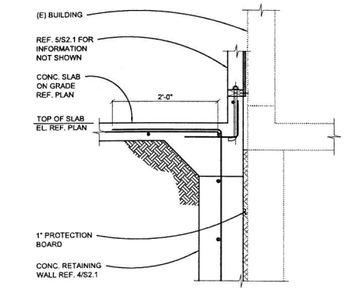
1 EXISTING RETAINING WALL
1"=1'-0" S1.1



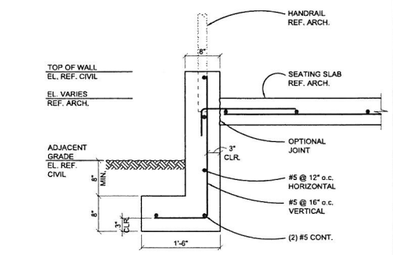
5 BUILDING SECTION
1"=1'-0" S1.1



2 SEATING SECTION
1"=1'-0" S1.1



6 BUILDING SECTION
1"=1'-0" S1.1



3 SEATING SECTION
1"=1'-0" S1.1

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Concrete Details

S2.1

SYMBOLS

Ⓐ	ACCESS PANEL
Ⓑ	BELOW GRADE / FLOOR
Ⓒ	CONNECT TO EXISTING
Ⓔ	EXISTING TO REMAIN
Ⓚ	CAP EXISTING / CAP FOR FUTURE
Ⓡ	RELOCATE EXISTING
Ⓧ	REMOVE EXISTING
①	NOTE

STANDARD MECHANICAL ABBREVIATIONS

AF	AIRFOIL	ID	INSIDE(DIAMETER/DIMENSION)
AFF	ABOVE FINISHED FLOOR	IE	INVERT ELEVATION
AHP	APPARATUS HOUSING PLENUM	IN	INCH(ES)
ALT	ALTERNATIVE	INSUL	INSULATION
AL	ALUMINUM	ISOL	ISOLAT(OR)(ION)
APD	AIR PRESSURE DROP	KW	KILOWATT
APPROX	APPROXIMATELY	KWH	KILOWATT HOUR
ARCH	ARCHITECT(URAL)	L	LENGTH
AUTO	AUTOMATIC	LAT	LEAVING AIR TEMP
BDD	BACKDRAFT DAMPER	LB	POUND
BI	BACKWARD INCLINED	LDB	LEAVING DRY BULB
BLDG	BUILDING	LF	LINEAR FEET
BSMT	BASEMENT	LFT	LEAVING FLUID TEMPERATURE
BTU	BRITISH THERMAL UNIT	LVG	LEAVING
BTUH	BRITISH THERMAL UNITS PER HOUR	LWB	LEAVING WET BULB
CFH	CUBIC FEET PER HOUR	LWT	LEAVING WATER TEMPERATURE
CFM	CUBIC FEET PER MINUTE	MAX	MAXIMUM
CFS	CUBIC FEET PER SECOND	MBH	THOUSAND BTU PER HOUR
CLG	CEILING OR COOLING	MECH	MECHANICAL
CONC	CONCRETE	MFR	MANUFACTURER
CONN	CONNECT(ION)	MIN	MINIMUM
CONT	CONTINUE(ED)(UATION)	MISC	MISCELLANEOUS
CL	CENTERLINE	MTD	MOUNTED
DDC	DIRECT DIGITAL CONTROL	NC	NORMALLY CLOSED
DEFL	DEFLECTION	NIC	NOT IN CONTRACT
DN	DOWN	NO	NORMALLY OPEN
DP	DEW POINT	OAD	OUTSIDE AIR DAMPER
DWDI	DOUBLE WIDTH DOUBLE INLET	OC	ON CENTER DISTANCE
DWG	DRAWING	OSA	OUTSIDE AIR
EA	EXHAUST AIR	PH	PHASE
EAD	EXHAUST AIR DAMPER	PP	POLYPROPYLENE
EAT	ENTERING AIR TEMPERATURE	PSI	POUNDS PER SQUARE INCH
EDB	ENTERING DRY BULB	PVC	POLYVINYL CHLORIDE
EFF	EFFICIENCY	PVS	PVC COATED STEEL
EFT	ENTERING FLUID TEMPERATURE	R (RAD)	RADIUS
ELEC	ELECTRIC(AL)	RA	RETURN AIR
ELEV	ELEVATION	RAD	RETURN AIR DAMPER
ENGR	ENGINEER	REV	REVISION
EQ	EQUAL	RH	RELATIVE HUMIDITY
EQUIP	EQUIPMENT	RPM	REVOLUTIONS PER MINUTE
ESP	EXTERNAL STATIC PRESSURE	SA	SUPPLY AIR
EWB	ENTERING WET BULB	SCFM	STANDARD CUBIC FEET PER MINUTE
EWT	ENTERING WATER TEMPERATURE	SD	SMOKE DAMPER
EX	EXTRACTOR	SECT	SECTION
EXH	EXHAUST	SENS	SENSIBLE
EXIST	EXISTING	SIM	SIMILAR
EXP	EXPANSION	SP	STATIC PRESSURE
F	DEGREES FAHRENHEIT	SPEC	SPECIFICATION
FC	FORWARD CURVED	SQ	SQUARE
FIG	FIGURE	SF	SQUARE FOOT(FEET)
FILT	FILTER	SQ IN	SQUARE INCH(ES)
FLEX	FLEXIBLE	SS	STAINLESS STEEL
FPD	FLUID PRESSURE DROP	STL	STEEL
FPM	FEET PER MINUTE	STRUCT	STRUCTUR(E)(AL)
FPS	FEET PER SECOND	SWP	SINGLE WALL PLENUM
FT	FEET/FOOT	SWSI	SINGLE WIDTH SINGLE INLET
FTR	FINNED TUBE RADIATOR	TEMP	TEMPERATURE
FU	FIXTURE UNIT	TSP	TOTAL STATIC PRESSURE
FUT	FUTURE	TYP	TYPICAL
FV	FACE VELOCITY	V	VOLTS
GA	GAGE/GAUGE	VD	VOLUME DAMPER
GAL	GALLON	VEL	VELOCITY
GALV	GALVANIZED	VERT	VERTICAL
GLY	GLYCOL	VFD	VARIABLE FREQUENCY DRIVE
GPH	GALLONS PER HOUR	VTR	VENT THROUGH ROOF
GPM	GALLONS PER MINUTE	W	WIDTH
H	HEIGHT	WG	WATER GAUGE
HORIZ	HORIZONTAL	WPD	WATER PRESSURE DROP
HP	HORSEPOWER	W/	WITH
HTG	HEATING	W/O	WITHOUT

PLUMBING DESIGN CRITERIA (Oregon)

DOMESTIC WATER PIPING SYSTEM
BASIS OF DESIGN: 2008 OREGON PLUMBING SPECIALTY CODE APPENDIX A "RECOMMENDED RULES FOR SIZING WATER SYSTEMS". PIPING SIZED ON 3 PSI/100 FT. DROP, VELOCITIES NOT TO EXCEED 8 FT./SEC. (COLD WATER) AND NOT TO EXCEED 5 FT./SEC. (HOT WATER).

WASTE AND VENT PIPING SYSTEM
BASIS OF DESIGN: 2008 OREGON PLUMBING SPECIALTY CODE, CHAPTER 7 "SANITARY DRAINAGE". ALL WASTE PIPING SIZED AT ?"/FT. UNLESS OTHERWISE NOTED.

PLUMBING FIXTURE SCHEDULE

ITEM	DESCRIPTION	ROUGH-IN SIZE – INCHES				NOTES
		W	V	CW	HW	
WC-1	WATER CLOSET	4	2	1?	–	WALL HUNG
WC-2	WATER CLOSET	4	2	1?	–	WALL HUNG, ADA
L-1	LAVATORY	2	1?	?	?	COUNTERTOP, OVAL, ADA, TEMPERATURE SELECTION/METERING
S-1	SINK	2	1?	?	?	COUNTERTOP, DOUBLE BOWL, ADA
WH-1	WALL HYDRANT	–	–	?	–	BOX/FLUSH TYPE w/LOCKING COVER VACUUM BREAKER, NON-FREEZE

PLUMBING EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	ELECTRICAL
DET-1	DOMESTIC WATER EXPANSION TANK 3.2 GALLONS ACCEPTANCE VOLUME 6.7 GALLONS TANK VOLUME BASED ON: AMTROL ST-12-C	–
EWH-1	ELECTRIC WATER HEATER 20 GALLON STORAGE 35 GPH RECOVERY @ 70 F RISE BASED ON: AO SMITH DSE	6 KW 240 V, 1 PH

EXHAUST FANS

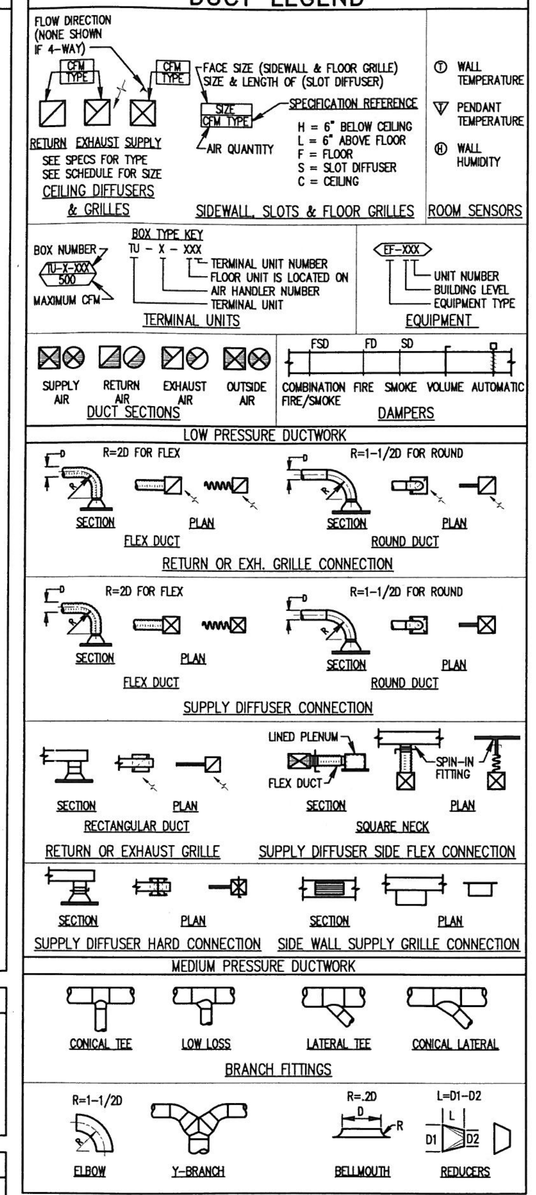
TAG NUMBER	LOCATION	SERVICE	TYPE	CFM	TSP (IN. WG.)	FAN RPM	ELECTRICAL		DRIVE	VIBRATION ISOLATION		APPROX. WEIGHT (LBS)	BASED ON	NOTES
							MOTOR WATTS	VOLTS/ø		TYPE	DEFLECTION (IN.)			
EF-1	CONCESSIONS	CONC. TOILET ROOMS	CABINET	500	0.75	1050	350	115/1	DIRECT	2	0.25	55	GREENHECK CSP-A700	①

NOTES:
① PROVIDE SCR CONTROL

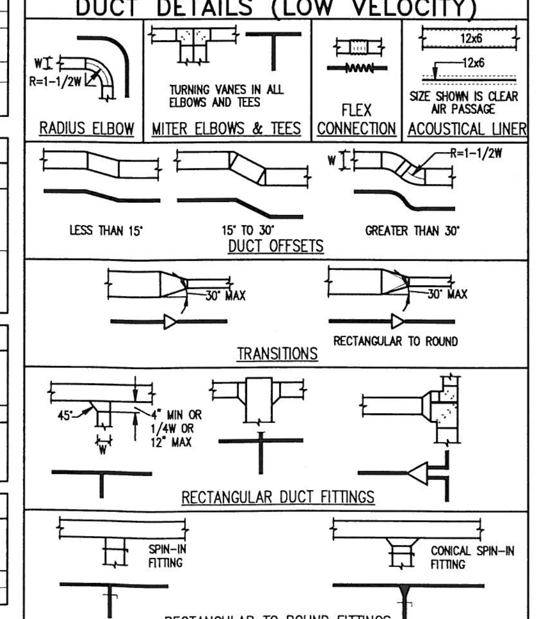
ELECTRIC INFRARED RADIANT HEATER PANELS

TAG NUMBER	LOCATION	SERVICE	TYPE	HEATING WATTS	LENGTH x WIDTH (IN)	ELECTRICAL		BASED ON	NOTES
						FLA (AMPS)	VOLTS/ø		
IRH-1	CONCESSION	CONCESSION	COVE	520	48x18	3.8	115/1	QMARK QT M18481	–
IRH-2	ANNOUNC BOOTH	ANNOUNC BOOTH	COVE	520	48x18	3.8	115/1	QMARK QT M18481	–

DUCT LEGEND



DUCT DETAILS (LOW VELOCITY)



GENERAL NOTE

THIS IS A STANDARD LEGEND SHEET, THEREFORE, SOME SYMBOLS MAY APPEAR ON THIS SHEET THAT DO NOT APPEAR ON THE DRAWINGS.

PLUMBING PIPING

W	WASTE	(ABOVE GRADE OR FLOOR)
W	WASTE	(BELOW GRADE OR FLOOR)
SD	STORM DRAIN	(ABOVE GRADE OR FLOOR)
SD	STORM DRAIN	(BELOW GRADE OR FLOOR)
OD	OVERFLOW DRAIN	(ABOVE GRADE OR FLOOR)
OD	OVERFLOW DRAIN	(BELOW GRADE OR FLOOR)
D	DRAIN (CONDENSATE/INDIRECT)	
V	VENT	
CW	COLD WATER	
HW	HOT WATER	
RHW	RECIRCULATING HOT WATER	

MISC. VALVES & COCKS

- SHUT-OFF VALVE
- CHECK VALVE
- BALANCING VALVE
- MAV / AAV — AIR VENT (MANUAL/AUTOMATIC)
- RELIEF VALVE
- STRAINER
- STRAINER W/ BLOWDOWN
- DV — DRAIN VALVE
- HB — HOSE BIBB
- WH — WALL HYDRANT
- PRESSURE GAUGE
- PRESSURE/TEMPERATURE TEST PLUG
- THERMOMETER
- S (SIZE) — SHOCK ARRESTOR
- V — VACUUM BREAKER

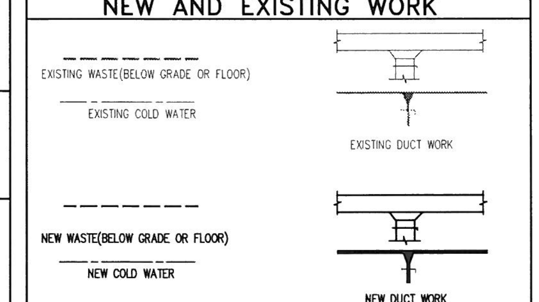
MISC. FITTINGS & SYMBOLS

- DIRECTION OF FLOW
- DIRECTION OF SLOPE
- PIPE SLEEVE
- REDUCER
- ANCHOR
- ELBOW (90°)
- ELBOW (45°)
- TEE
- CROSS
- PIPING CONNECTIONS
- JOINT OR COUPLING POINT
- UNION
- FLANGED CONNECTION
- CAP
- PLUG OR BLIND FLANGE
- RISER
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- HORIZONTAL TEE
- FLEXIBLE CONNECTION
- BALL JOINT
- MC — MECHANICAL COUPLING

PLUMBING SYMBOLS

CO	CLEANOUT
WCO	WALL CLEANOUT
FCO	FLOOR CLEANOUT
CTG	CLEANOUT TO GRADE
FD	FLOOR DRAIN
FS	FLOOR SINK

NEW AND EXISTING WORK



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key plan

phase	
date	Feb. 26, 2010
revisions	
project #	09001

SYMBOLS, LEGENDS & ABBREVIATIONS - MECHANICAL

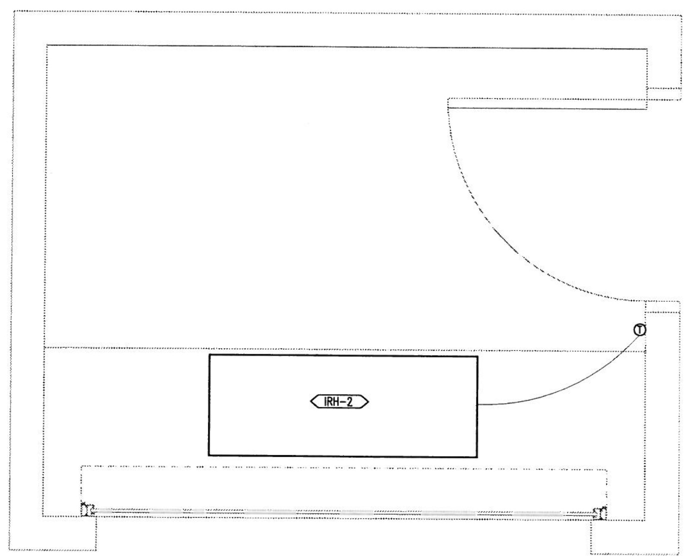
M001

GENERAL NOTES:

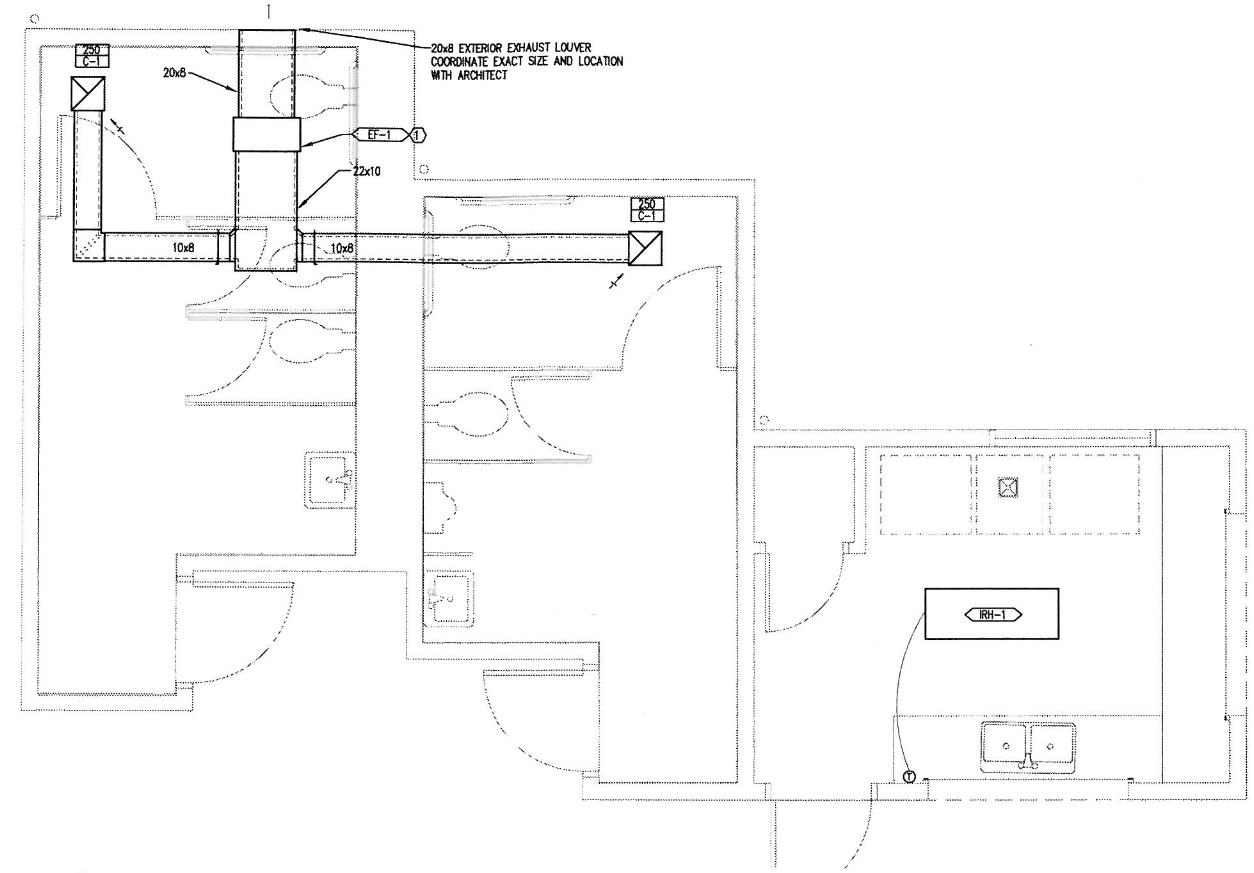
1. XXX

NOTES:

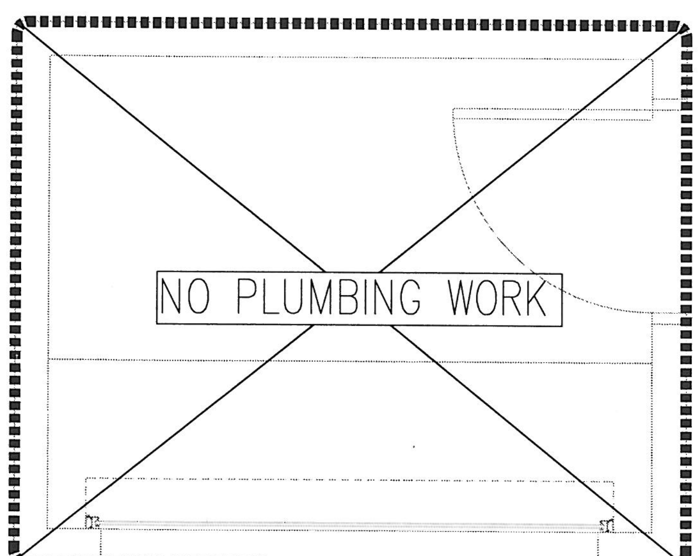
(1) PROVIDE FLEXIBLE DUCT CONNECTORS ON INLET AND OUTLET OF FAN. PROVIDE SPRING HANGER ISOLATION FOR FAN.



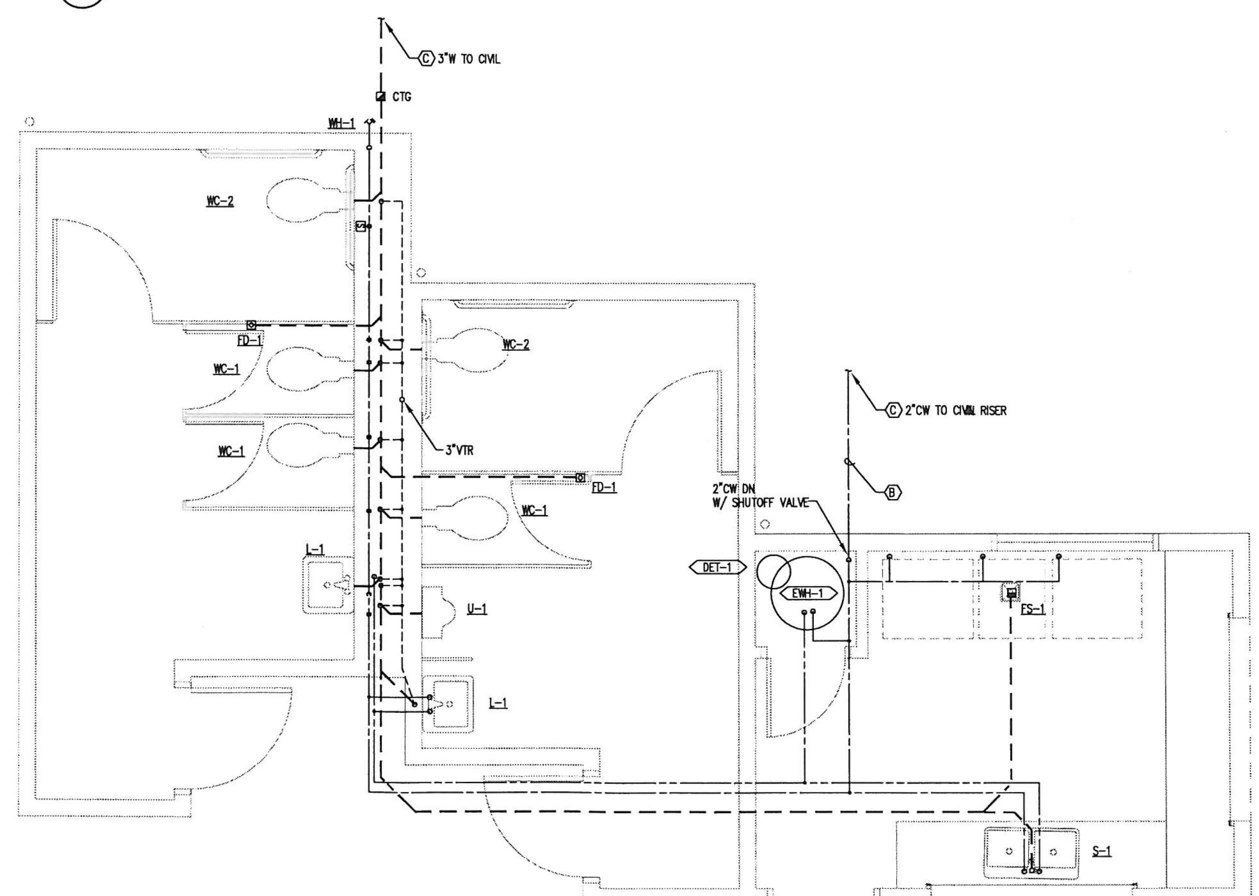
1 M201 FLOOR PLAN – ANNOUNCER BOOTH – HVAC
SCALE: 1" = 1'-0"



2 M201 FLOOR PLAN – CONCESSIONS – HVAC
SCALE: ?" = 1'-0"



3 M201 FLOOR PLAN – ANNOUNCER BOOTH – PLUMBING
SCALE: 1" = 1'-0"



4 M201 FLOOR PLAN – CONCESSIONS – PLUMBING
SCALE: ?" = 1'-0"

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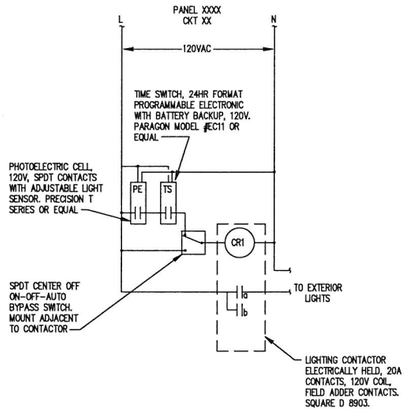
FLOOR PLANS
MECHANICAL

M201



1 E6.01 EXTERIOR LIGHTING CONTROL DIAGRAM
SCALE: NONE

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

EQUIPMENT DESCRIPTIONS			ELECTRICAL CHARACTERISTICS							CONNECTION CHARACTERISTICS					FEEDER CHARACT ERISTICS					PANEL INFORMAT ION		NOTES
TAG	DESCRIPTION	LOCATION	KW	HP	FLA	MCA	MOCP	VOLTS	PHASE	VFD	STANDBY POWER	1-POINT CONNECT	STARTER DIVISION	DISCONNECT DIVISION	CONDUIT DIA (INCH)	OCP (AMPS)	OCP (POLES)	PHASE CONDUCTOR	GROUND CONDUCTOR	PANEL	CIRCUIT	
EF-1	Exhaust Fan	Concessions	0.8					120	1	NONE	NO	YES	23	26	1/2"	20	1	2#12	1#12	2C1		
IRH-1	Infared Heater	Concessions	0.52					120	1	NONE	NO	YES		26	1/2"	20	1	2#12	1#12	2C1		
IRH-2	Infared Heater	Announcers Booth	0.52					120	1	NONE	NO	YES		26	1/2"	20	1	2#12	1#12	2C1		
EWH-1	Electrical Water Heater	Concessions	6					240	1	NONE	NO	YES		26	1/2"	30	1	2#10	1#10	2C1		
Trap Primers		Concessions	0.25					120	1	NONE	NO	YES			1/2"	20	1	2#12	1#12	2C1		

2 E6.01 MECHANICAL EQUIPMENT CONNECTION SCHEDULE
SCALE: NONE

3 E6.01 PANEL SCHEDULE 2C1 – ELECTRICAL
SCALE: NONE

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DETAILS AND SCHEDULES - ELECTRICAL

E601

11:06 04/14/10 P:\Active_Jobs\09_1000-1050\09-1012.36 - WLWSD WLHS Bleachers\CAD\Drawings\ 09101236E601.dwg o:TB09101236 adamk <<HALF SCALE>> [3rd Floor Large Format BW.pc3 HP-HDI-H.CTB 0.0,0.0] 2k7