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Western and Northern
Region

Gestion Stratégique
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Région de l'Ouest et
du Nord

Canada

CASTLE MOUNTAIN CAMPGROUND (PHASE 2)
INFRASTRUCTURE REHABILITATION
BANFF NATIONAL PARK, ALBERTA

CONSULTANT PROJECT No. 19M-01812-00

DATE: 03-AUG-2022

ISSUED FOR TENDER



SITE LOCATION PLAN
SCALE 1:2500

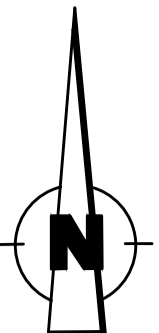
DRAWING INDEX	
DWG No.	DRAWING TITLE
C100	TITLE SHEET & INDEX
C101	EXISTING SITE PLAN - OVERALL PLAN
C101A	DEMOLITION AND REMOVALS - VEGETATION CLEARING AND STRIPPING
C102	NEW WASHROOM AREA UNDERGROUND WATER AND SANITARY PLAN
C103	SITE GRADING PLAN - DESIGN GRADE
C104	UNDERGROUND PROFILE - NORTH WATER ALIGNMENT
C104A	SITE RESTORATION PLAN
C400	CIVIL DETAILS
C401	CIVIL DETAILS
C402	CIVIL DETAILS
A100	WASHROOM BUILDING ELEVATIONS
A110	WASHROOM BUILDING FOUNDATION PLAN FLOOR PLAN
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M1.0A	MECHANICAL WASHROOM BUILDING COVER SHEET, LEGEND, SCHEDULES
M1.0	MECHANICAL WASHROOM BUILDING FOUNDATION PLAN
M2.0	MECHANICAL WASHROOM BUILDING VENTILATION, PLUMBING PLAN
M3.0	MECHANICAL WASHROOM BUILDING DETAILS
E0.0	ELECTRICAL COVER SHEET
E1.1	SITE PLAN - POWER RENOVATION LAYOUT
E1.2	ELECTRICAL DETAILS
E1.3	ELECTRICAL DETAILS
E1.4	ELECTRICAL DETAILS
E2.0	POWER & SYSTEMS AND LIGHTING PLAN
E3.0	ELECTRICAL DETAILS, PANEL SCHEDULES & SINGLE LINE DIAGRAM



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Unit: 1000m
Scale: 1:500
Date: 04 FEB 2020
Project: 19M-01812-00
Drawing: C101A_EX SITE.dwg
Author: J. Smith
Checked: M. Jones
Approved: A. Brown
Last Saved: 2022-06-03 1:06:17 PM
By: J. Smith
Plot: 19M-01812-00
Printer: HP DesignJet T110
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Color: 19M-01812-00
Status: In Progress
Location: Banff National Park, Alberta
Project Manager: Matthew Whalen
Client: Parks Canada
Contract: 19M-01812-00
Drawing Title: EXISTING SITEPLAN - OVERALL PLAN
Drawing Reference: C101

PERMIT TO PRACTICE
WSP CANADA INC.
RM SIGNATURE: [Signature]
RM APEGA ID #: 46733
DATE: 3 August 2022
PERMIT NUMBER: P007641
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)



LEGEND

	CONSTRUCTION BOUNDARY
	EXISTING STRIPPING AND DISTURBANCE AREA
	EXISTING CLEARED GRAVEL LIMITS (EXISTING VEGETATION TO BE PROTECTED)
	EXISTING CONIFEROUS TREES AND VEGETATION TREE REMOVAL LIMITS
	EXISTING PAVED ROAD
	EXISTING OVERHEAD POWER
	EXISTING UNDERGROUND WATER LINE (TO BE ABANDONED)
	EXISTING UNDERGROUND WATER LINE (ABANDONED)
	EXISTING EFFLUENT LINE (ABANDONED)
	EXISTING POWER POLE w/ GUY WIRE
	EXISTING SUPPLY WELL

8	03AUG2022	ISSUED FOR TENDER	AI	JHW
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5	05NOV2021	ISSUED FOR REVIEW	AI	JW2
4	28OCT2021	ISSUED FOR CONSTRUCTION	AI	JW2
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision	
	A detail number numéro de détail
	B source drawing no. de dessin no.
	C detail on drawing no. détail sur dessin no.

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
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 Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

Client/client	 Parks Canada Agency	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet
**CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)**
BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin
**EXISTING SITEPLAN -
OVERALL PLAN**

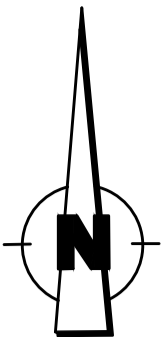
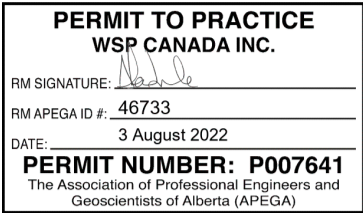
Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AI	Date/Date 04FEB2020
Designed by/Concept par CC	Reviewed by/Revisé par JHW	Scale/Échelle 1:500

PWGSC Project Manager/Administrateur de Projets TPSSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSSGC

Project No./No. du projet 19M-01812-00	Asset No./No. du-bien -	Sheet No./ No. de la feuille 1
Drawing Reference No./No. de référence du dessin C101		33

NOTES:

1. CLEARING OF AREAS SHOWN INCLUDES REMOVAL OF ALL TREES, BOTH STANDING AND FALLEN, BUT DOES NOT INCLUDE SHRUB REMOVAL AND TOPSOIL STRIPPING UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL SALVAGE TREES UNDER 2m TALL AND SHRUBS WHEREVER POSSIBLE TO USE IN VEGETATION RESTORATION AREAS TO BE IDENTIFIED BY PCA ON SITE.
3. CLEARING LIMITS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR IS TO CONFIRM WITH PCA ON SITE ONCE UTILITY ALIGNMENTS HAVE BEEN CONFIRMED ON SITE PRIOR TO BEGINNING WORK.
4. PCA WILL MARK OUT ALL STANDING TREES TO BE REMOVED PRIOR TO WORK BEGINNING. ALL FALLEN TREES WITHIN THOSE AREAS MUST ALSO BE REMOVED.
5. SALVAGED TOPSOIL IS TO BE STORED LOCALLY ON SITE AS CLOSE AS POSSIBLE TO AREA WHERE IT CAME FROM UNLESS OTHERWISE APPROVED BY PCA. ALL SALVAGED/TOPSOILED TOPSOIL MUST BE FULLY TARPED TO ALLOW FOR LONG TERM STORAGE.
6. MATERIAL TO BE USED TO BACKFILL EXISTING SEPTIC TANK IS TO BE TAKEN FROM PROPOSED SEPTIC TANK AREA. CONTRACTOR IS TO COORDINATE EXCAVATION OF THAT MATERIAL WITH PCA. CONTRACTOR TO ASSUME 25m³ OF MATERIAL REQUIRED.
7. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING SITE DAMAGE TO ORIGINAL CONDITION UPON COMPLETION OF WORK UNLESS OTHERWISE NOTED.
8. ALL ITEMS SHOWN ON C101A HAVE BEEN INCLUDED IN PHASE 1 CONTRACT.



LEGEND

- CONSTRUCTION BOUNDARY
- PROPOSED STRIPPING AND DISTURBANCE AREA
- PROPOSED GRAVEL CLEARING
(EXISTING VEGETATION TO BE PROTECTED)
- PROPOSED REMOVAL OF
CONIFEROUS TREES AND VEGETATION
- EXISTING PAVED ROAD
- EXISTING OVERHEAD POWER TO BE REMOVED
- EXISTING SURFACE WATER LINE TO BE REMOVED
- EXISTING UNDERGROUND WATER LINE
TO BE ABANDONED IN PLACE
- EXISTING POWER POLE w/
GUY WIRE TO BE REMOVED
- EXISTING WATER MANHOLE
- EXISTING MONITORING WELL
- EXISTING SUPPLY WELL
- EXISTING WATER STAND PIPE
c/w WATER WOOD BOX
- EXISTING CULVERT TO BE REMOVED

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	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

DEMOLITION AND
REMOVALS – VEGETATION
CLEARING AND STRIPPING

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AI	Date/Date 04FEB2020
Designed by/Concept par CC	Reviewed by/Revisé par JHW	Scale/Échelle 1:500

PWGSC Project Manager/Administrateur de Projets TPSSGC
MATTHEW WHALEN

Client Acceptance/Acceptation du client Approved by/Approuvé par

Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSSGC
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Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 2
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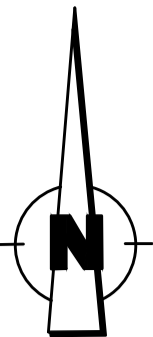
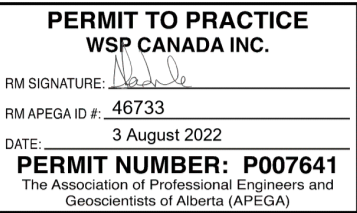
Drawing Reference No./No. de référence du dessin
C101A

OF 33

NOTES:

- ALL PIPE SIZES ARE IN MILLIMETERS AND ALL DIMENSIONS AND ELEVATIONS IN METRES UNLESS OTHERWISE SHOWN. SURVEY NOTES: NAD 83 (CSRS EPOCH 2002.0) UTM ZONE 11. BEARINGS ARE GRID, DERIVED FROM GNSS OBSERVATIONS.
- DISTANCES ARE METRES AND BETWEEN IRON POSTS UNLESS SHOWN OTHERWISE. REFERENCE FRAME HAS BEEN COORDINATED THROUGH NATURAL RESOURCES CANADA PRECISE POINT POSITIONING (PPP).
- POLYETHYLENE (HDPE) WATER AND SANITARY MAINS TO CONFORM TO AWWA C901, WITH SDR 17.0. RELATED AWWA STANDARDS APPLY FOR APPURTENANCES, INSTALLATION, AND DISINFECTION.
- GRAVITY SANITARY SEWER MAINS TO BE PVC SDR35 PIPE CONFORMING TO CSA B182.2 AND ASTM D3034.
- MINIMUM SLOPE FOR THE SANITARY SEWER SERVICE CONNECTION IS 1.00%.
- DEPTH OF BURY ON ALL WATER MAINS AND SERVICE LINES SHALL NOT BE LESS THAN 1.1m TO THE TOP OF THE PIPE UNLESS OTHERWISE NOTED.
- DEPTH OF BURY ON ALL SANITARY MAINS AND SERVICE LINES SHALL NOT BE LESS THAN 1.1m TO THE TOP OF THE PIPE UNLESS OTHERWISE NOTED.
- MAINTAIN A MINIMUM OF 1.00m SEPARATION DISTANCE BETWEEN THE WATER AND SANITARY MAINS.
- ALL PIPE BEDDING TO BE TYPE 2 INSTALLATION.
- CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, INVERTS AND ELEVATIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM PARKS CANADA AND OTHER RELEVANT JURISDICTIONS PRIOR TO CONSTRUCTION, INCLUDING EROSION AND SEDIMENT CONTROL.

- EROSION AND SEDIMENT CONTROL (ESC) – IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED AND FOLLOWED AND TO ENSURE THEIR EFFECTIVENESS THROUGH THE CONSTRUCTION PERIOD.
- CONTRACTOR TO BE RESPONSIBLE FOR DETERMINING LOCATIONS AND ALIGNMENT OF ALL EXISTING UTILITIES. THE LOCATIONS OF ALL EXISTING UTILITIES ON THE DRAWING ARE APPROXIMATE.
- CONTRACTOR TO BE RESPONSIBLE TO CONFIRM EXISTING PIPE SIZES PRIOR TO THE START OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL AND TRAFFIC ACCOMMODATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL PRIVATE AND UTILITY LOCATES INCLUDING ALBERTA ONE CALL PRIOR TO DIGGING.
- CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL ABANDONED EXISTING UTILITIES ENCOUNTERED DURING EXCAVATION.
- WATER AND SANITARY ALIGNMENTS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL COMPLETE SURVEY LAYOUT OF PROPOSED UTILITIES ON SITE, AND HAVE LOCATIONS CONFIRMED ON SITE BY DEPARTMENTAL REPRESENTATIVE PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING NEW 3m DEEP PITLESS ADAPTER ON EXISTING POTABLE WATER WELL AND TIE IN WATERLINE TO WASHROOM BUILDING.
- ALL PROPOSED WATER AND SANITARY LINE INSTALLATIONS ARE TO INCLUDE TRACER WIRE INSTALLATIONS WITH WIRE BROUGHT INTO MECHANICAL AND/OR SEPTIC TANK ENCLOSURE FOR LOCATE HOOKUPS.
- SEPTIC TANK DOSING PUMP INSTALLATION IS OUTSIDE THE SCOPE OF THIS CONTRACT.
- CONTRACTOR IS REQUIRED TO VERIFY WELL TIE-IN INVERT PRIOR TO INSTALLING WATERLINE CONNECTION TO WASHROOM BUILDING. TO MODIFY PIPE PROFILE AS REQUIRED TO MAINTAIN MINIMUM 2% POSITIVE SLOPE BACK TO WELL AND MINIMUM 3m COVER.
- SANITARY FORCED MAIN PROFILE, INCLUDING SEPTIC TANK TIE-IN INVERT TO BE CONFIRMED AFTER SEPTIC TANK SHOP DRAWINGS HAVE BEEN APPROVED. SANITARY FORCE MAIN PROFILE MAY NEED TO BE MODIFIED TO ACCOMMODATE SEPTIC TANK.



LEGEND

- CONSTRUCTION BOUNDARY
- EXISTING PAVED ROAD
- PROPOSED SANITARY PIPE
- FUTURE SANITARY PIPE
- PROPOSED WATER PIPE
- EXISTING BURIED WATER PIPE (ABANDONED)
- FUTURE WATER PIPE
- ⊙ EXISTING WATER DRAIN MANHOLE
- ⊙ EXISTING MONITORING WELL
- ⊙ EXISTING SUPPLY WELL
- ⊙ EXISTING WATER STAND PIPE c/w WATER WOOD BOX (ABANDONED)
- ⊙ EFFULENT STAND PIPE
- ⊙ FUTURE WATER STAND PIPE c/w CSP DRAIN PIT
- ⊙ PLUG
- ⊙ WATER VALVE
- ⊙ CURB STOP
- ⊙ FUTURE CLEANOUT VALVE (SEE SHEET C403 FOR DETAILS)
- ⊙ MECHANICAL ROOM

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Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
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	Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

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	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

NEW WASHROOM AREA
UNDERGROUND WATER
AND SANITARY PLAN

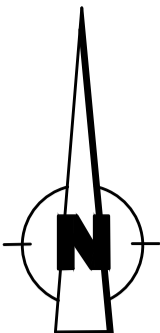
Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AI	Date/Date 04FEB2020
Designed by/Concept par CC	Reviewed by/Revisé par JHW	Scale/Échelle 1:100
PWGSC Project Manager/Administrateur de Projets TPSCG MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSCG
Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 3
Drawing Reference No./No. de référence du dessin C102		33

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NOTES:

1. CONTRACTOR TO REVIEW WITH PCA HOW TO TIE-IN NEWLY GRADED AREAS WITH EXISTING SURROUNDING GRADES TO ENSURE GOOD POSITIVE DRAINAGE AND ENSURE SLOPES COMPLIMENT ADJACENT AREAS. MAY REQUIRE GRADING TO EXTEND BEYOND LIMITS SHOWN. (UP TO 5m FROM PATHWAYS, ROADWAYS, FENCES, ETC.)
2. CONTRACTOR IS TO SLOPE GROUND AT 4H:1V FOR TYING INTO SURROUNDING AREAS, UNLESS OTHERWISE APPROVED BY PARKS CANADA IN WRITING.
3. GRADING SHOWN IS APPROXIMATE, WITHIN 15cm ACCURACY FOR THE PURPOSE OF SHOWING OVERALL SITE GRADING INTENT. ACTUAL GRADING TO BE FIELD FITTED ON SITE WITH DEPARTMENTAL REPRESENTATIVE TO MEET PARKS CANADA'S DESIRED OUTCOME.
4. CONTRACTOR TO COMPLETE ROUGH SUBGRADE GRADING ACCORDING TO THIS DRAWING OR AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE AND OBTAIN APPROVAL FROM DEPARTMENTAL REPRESENTATIVE PRIOR TO PROCEEDING TO PLACE TOPSOIL OR OTHER SURFACE FINISHING STRUCTURES. REQUIRES ON SITE INSPECTION AND WALKTHROUGH BY DEPARTMENTAL REPRESENTATIVE.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING GRADING PROVIDES MINIMUM UTILITY COVERAGE REQUIREMENTS.
6. ALL WORK SHOWN IS IN SCOPE UNLESS OTHERWISE NOTED.
7. CONTRACTOR IS TO RESTORE ALL DISTURBED AREAS WITH TOPSOIL AND SEEDING PER RESTORATION DRAWING UNLESS OTHERWISE IDENTIFIED FOR ANOTHER FORM OR SURFACE RESTORATION.
8. PARKS CANADA MAY OPT TO RELOCATE THE FOOD LOCKER PAD WITHIN THE DISTURBED AREA. CONTRACTOR TO CONFIRM LOCATION ON SITE WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.

PERMIT TO PRACTICE
WSP CANADA INC.
RM SIGNATURE: [Signature]
RM APEGA ID #: 46733
DATE: 3 August 2022
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The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

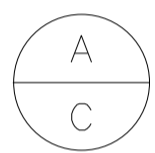


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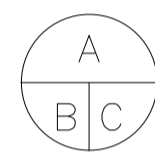
- CONSTRUCTION BOUNDARY
- EXISTING ASPHALT ROADWAY EDGE
- PROPOSED GRAVEL ACCESS ROAD/ PROPOSED GRAVEL TRAIL
- PROPOSED GRAVEL ROADWAY STRUCTURE
- PROPOSED GRAVEL ACCESS ROAD/ PROPOSED GRAVEL TRAIL (PHASE 3)
- PROPOSED WOODEN FENCE
- PROPOSED PAGE WIRE FENCE
- PROPOSED SURFACE SWALE
- PROPOSED PHASE 2 FINISHED GRADE
- EXISTING GRADE (SEE NOTE #1)
- PROPOSED DESIGN SLOPE
- EXISTING SUPPLY WELL
- PROPOSED STACKED BOULDER RETAINING WALL REFER TO DETAIL ON PAGE 401
- PROPOSED CONCRETE PAD REFER TO DETAIL ON PAGE 400
- PROPOSED GRAVEL ROADWAY STRUCTURE
- PROPOSED CONCRETE TRANSFORMER PAD
- BOULDER
- PROPOSED 8"x8" WOODEN POST

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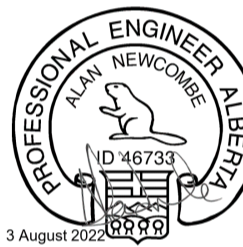


Consultant's Name
Nom de l'expert-conseil



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Client/client



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CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

SITE GRADING AND SURFACE
FINISHINGS PLAN –
PROPOSED FINISHED GRADES
AND SURFACE MATERIALS

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AI	Date/Date 04FEB2020
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PWGSC Project Manager/Administrateur de Projets TPSCG

MATTHEW WHALEN

Client Acceptance/Acceptation du client

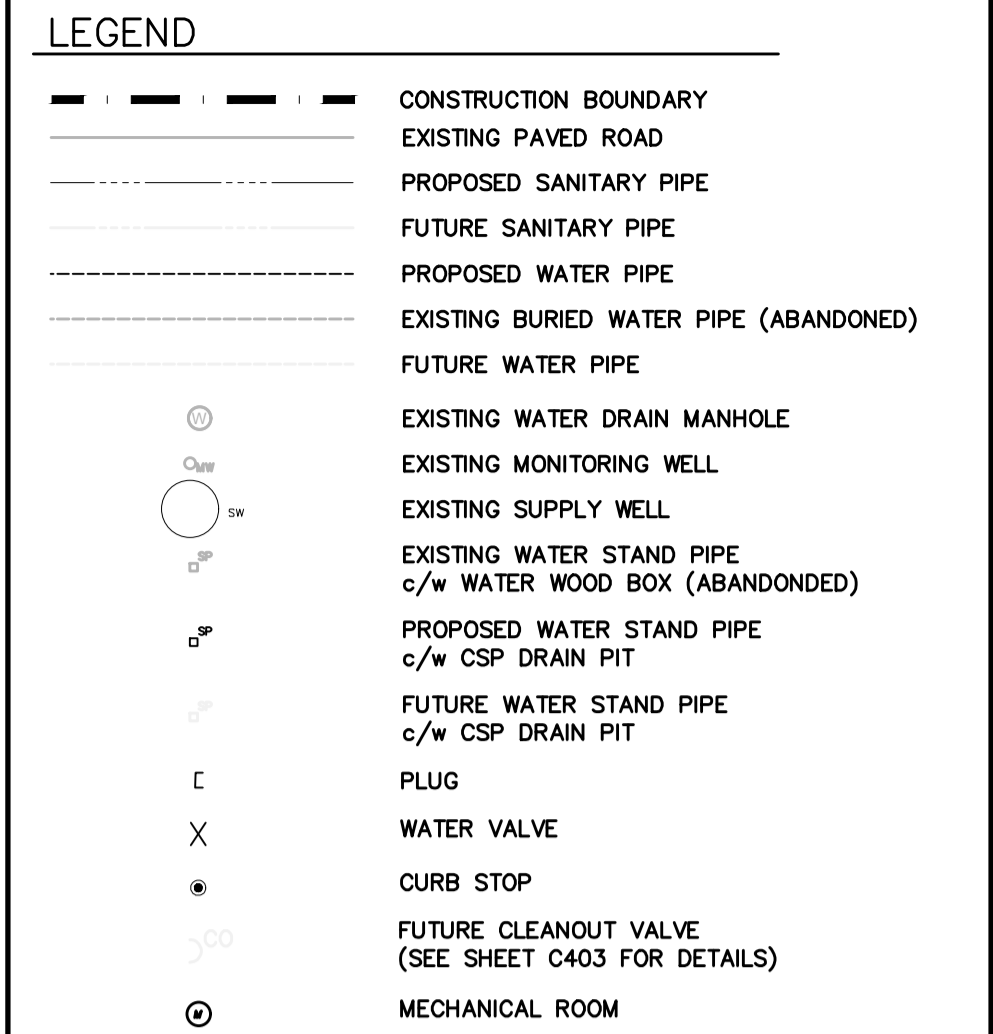
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Park Responsible Officer/Agent Responsable


PWGSC Project Manager/Administrateur de Projets TPSCG

Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 4
Drawing Reference No./No. de référence du dessin C103		33

1. CONTRACTOR CONTRACTOR IS REQUIRED TO VERIFY WELL TIE-IN INVERT PRIOR TO INSTALLING WATERLINE CONNECTION TO WASHROOM BUILDING. ACTUAL WELL TIE-IN INVERT IS TO BE DEPENDENT ON FINISHED SURFACE ELEVATION AND SELECTED NEW PITLESS ADAPTER. CONTRACTOR TO MODIFY PIPE PROFILE TO WASHROOM BUILDING AS REQUIRED TO MAINTAIN MINIMUM 2% POSITIVE SLOPE BACK TO WELL AND MINIMUM 3m COVER.
2. FOR SANITARY TIE-IN TO SEPTIC TANK, PROFILE IS TO BE PROVIDED BY THE DEPARTMENTAL REPRESENTATIVE AFTER THE SEPTIC TANK SHOP DRAWINGS HAVE BEEN FINALIZED. INSTALLATION OF SANITARY FORCED MAIN IS NOT TO BE COMPLETED PRIOR TO RECEIVING THE REVISED PROFILE DETAILS.



Revision / Revision	
<div><div><div>A</div><div>C</div></div></div>	<div><div>A detail number numéro de détail</div><div>B source drawing no. de dessin no.</div><div>C detail on drawing no. détail sur dessin no.</div></div>

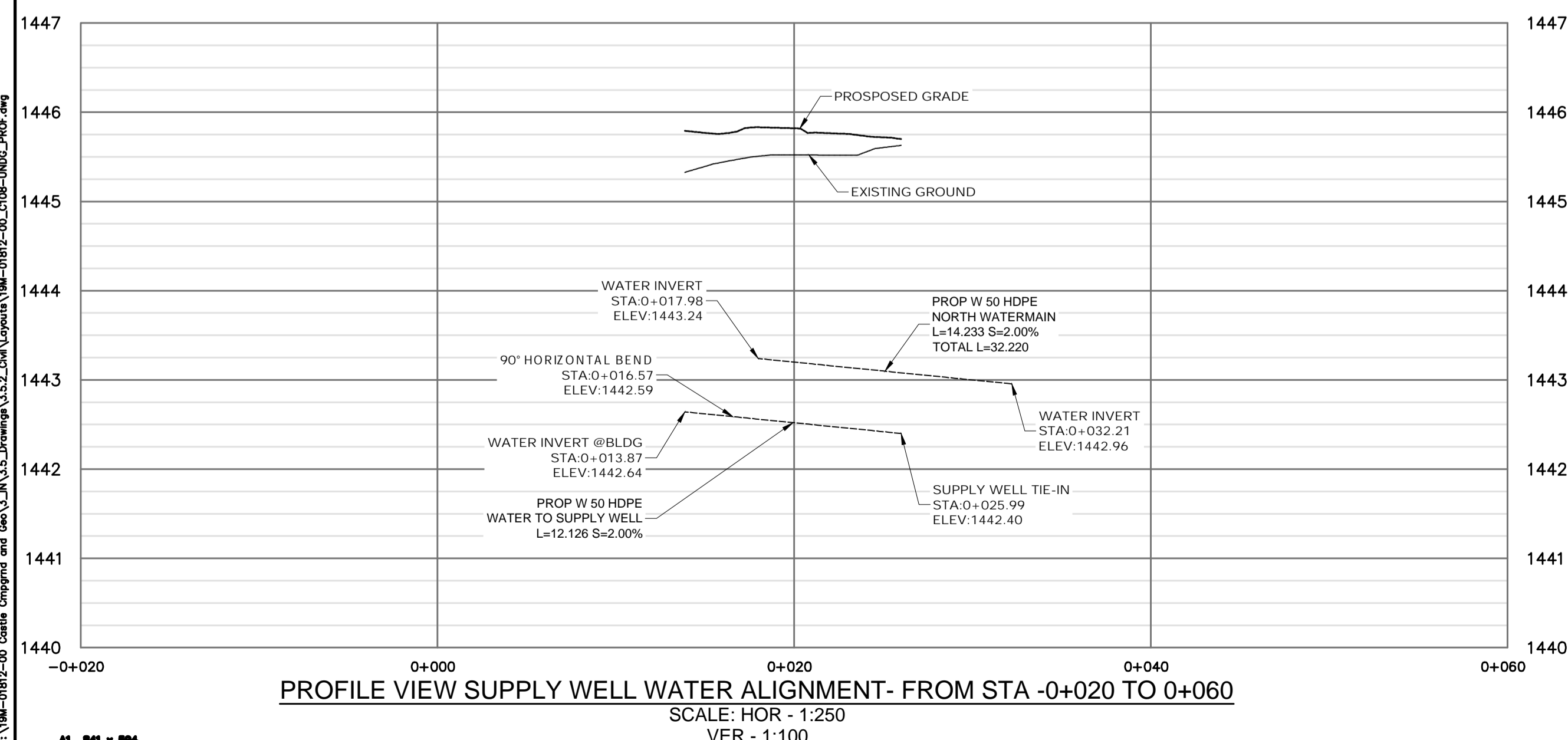
4		Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
3		Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client	
	Parks Canada Agency / L'Agence Parcs Canada
	Western and Northern Region / Ouest et Nord du Canada

Drawing title/Titre du dessin

UNDERGROUND
PROFILE – NORTH
WATER ALIGNMENT

PWGSC Project Manager/Administrateur de Projets TPSGC			
MATTHEW WHALEN			
Client Acceptance/Acceptation du client		Approved by/Approuvé par	
Rank Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du-bien	Sheet No./ No. de la feuille	
19M-01812-00	-		
Drawing Reference No./No. de référence du dessin			
C104		6 33	



- NOTES:
1. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND ELEVATIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
 2. EROSION AND SEDIMENT CONTROL (ESC) PLANS TO BE SUBMITTED AND APPROVED BY PCA PRIOR TO CONTRACTOR MOBILIZATION.
 3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PARKS CANADA REQUIREMENTS.
 4. DISTURBANCE LIMITS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY ADDITIONAL DISTURBED AREAS TO MATCH IDENTIFIED RESTORATION FOR NEAREST DISTURBED AREA PRESCRIPTION.
 5. ALL PATHWAYS AND DRIVEWAYS TO BE LAID OUT FOR APPROVAL BY PCA PRIOR TO CONSTRUCTING.
 6. ROUGH SITE GRADING TO BE APPROVED BY PCA PRIOR TO PLACING TOP SOIL OR PLANTING.
 7. SURFACES TO BE GRADED TO HAVE ROLLING AND NON-FLAT TOPOGRAPHY TO COMPLIMENT ADJACENT AREAS PRIOR TO PLACING TOPSOIL AND VEGETATION.
 8. ALL TREE AND SHRUB PLANTINGS ARE TO BE FENCED WITH 6' TALL PAGE WIRE FENCING WITH TEE-BAR POSTS AT 8' SPACING UNLESS OTHERWISE DIRECTED BY PCA.

Table 1: Old Washroom Restoration Area - Planting Requirements

Common Name	Botanical Name	Quantity	Minimum Size	Spacing
Shrubs				
Prickly Rose	Rosa acicularis	53	#1 pot	1.0 m from other shrub clusters
Prickly Rose	Rosa acicularis	23	#2 pot	
Prickly Rose	Rosa acicularis	23	#5 pot	
Grey Leaved Willow	Salix glauca	53	#1 pot	
Grey Leaved Willow	Salix glauca	23	#2 pot	
Grey Leaved Willow	Salix glauca	23	#5 pot	
Common Bearberry/Kinnikinnik	Arctostaphylos uva-ursi	32	#1 pot	
Trees				
Trembling Aspen	Populus Tremuloides	10	#5 container	
Trembling Aspen	Populus Tremuloides	25	#1 container	
Grass and Forb Plugs				
Mountain brome	Bromus carinatus	435	150 mm height	300mm spacing from other plugs and shrub/tree plantings
Hairy Wild Rye	Elymus innovatus	435		
Yarrow	Achillea millefolium	435		
Northern Bedstraw	Galium boreale	435		
Showy Aster	Aster conspicuus	435		

- Notes
- 1- Installed shrubs to cover 65% of area at maturity, natural re-vegetation in remaining area to promote natural ingress
 - 2- Shrubs to be planted in clusters of 3-5 of same species (species within cluster to have max. spacing of 0.25m)
 - 3- All #5 pot or larger tree plantings to be laid out by PCA prior to planting
 - 4- Grass/forb plugs to be planted to cover 2% of area
 - 5- Grass/forb plugs to be planted in clusters of 3-5. Minimum 2 species per cluster
 - 6- Total restoration area is estimated to be approximately 275m²

9. CONTRACTOR IS TO ALLOW FOR THE SUPPLY/INSTALLATION OF 275M OF PAGE WIRE FENCING TO PROTECT VARIOUS RESTORATION AREAS FROM WILDLIFE. ACTUAL FENCED AREAS TO BE LAID OUT BY PARKS CANADA ON SITE PRIOR TO INSTALLATION BY CONTRACTOR.
10. CONTRACTOR IS TO INCLUDE COARSE WOODY DEBRIS IN ALL RESTORATION AREAS AS PER PARKS CANADA INSTALLATION DIRECTION.
11. PLANTING QUANTITIES INCLUDED IN TABLES 1 & 2 ARE IN ADDITION TO ONE ANOTHER; QUANTITIES ARE NOT DOUBLE COUNTED IN EACH TABLE.
12. ALL PLANT MATERIAL IS TO BE TRUE TO FORM, FROM SAME GEOCLIMATIC ZONE, AND IN GOOD HEALTH AT TIME OF PLANTING.
13. OLD WASHROOM RESTORATION AREA IS TO BE RESTORED WITH:
 - 13.1. CONTRACTOR TO REMOVE ANY EXISTING GRAVEL/INFRASTRUCTURE FROM AREA
 - 13.2. SCARIFY/DECOMPACT EXISTING SOIL WITHIN RESTORATION AREA
 - 13.3. SPREAD 75MM OF SALVAGED TOPSOIL FROM PROPOSED SEPTIC FIELD AREA
- 13.4. SUPPLY/INSTALL PLANTINGS ACCORDING TO TABLE 1.
14. NEW WASHROOM RESTORATION AREA IS TO BE RESTORED WITH:
 - 14.1. GRAVEL PATHWAYS, GRAVEL ROADWAYS AND CONCRETE PATHWAYS TO BE CONSTRUCTED WITHIN THE AREA ACCORDING TO LAYOUT SHOWN IN DRAWING C103. ALL OTHER AREAS TO BE RESTORED WITH GRASS SEED
 - 14.2. GRASS SEEDING AREAS ARE TO BE ROUGH GRADED, WITH 75MM OF TOPSOIL PLACED FROM EXISTING TOPSOIL STOCKPILE ON SITE. GRASS SEEDING TO BE COMPLETED ACCORDING TO TABLE 3
- 14.3. SUPPLY/INSTALL PLANTINGS ACCORDING TO TABLE 2.
15. NEW CAMPSITE AREA TO BE COMPRISED OF:
 - 15.1. REMOVE AND RELOCATE EXISTING GARBAGE BINS FROM AREA TO OTHER AREA WITHIN CAMPGROUND AS IDENTIFIED ON SITE BY PARKS CANADA.
 - 15.2. SUPPLY/INSTALL GRAVEL ROADWAY STRUCTURE OVER CAMPSITE AREA ACCORDING TO LAYOUT ON SITE BY PARKS CANADA.
 - 15.3. INSTALL SALVAGED FIRE PIT AND PICNIC TABLE PER PARKS CANADA DIRECTION.
16. PROPOSED SEPTIC FIELD AREA
 - 16.1. CONTRACTOR IS REQUIRED TO STRIP EXISTING VEGETATION AND TOPSOIL TO REUSE IN OLD WASHROOM RESTORATION AREA
 - 16.2. REMOVE/DISPOSE OF ALL TREE STUMPS
 - 16.3. CONTRACTOR IS TO UNIFORMLY EXCAVATE MATERIAL FROM WITHIN THIS AREA TO USE IN RE-GRADEING AREA AROUND NEW WASHROOM BUILDING.
17. GRAVEL PATHWAYS ARE TO BE CONSTRUCTED ACCORDING TO 3.00m GRAVEL ACCESS DETAIL, DRAWING C400.
18. GRAVEL ROADWAYS ARE TO BE CONSTRUCTED ACCORDING TO TYPICAL ROAD CROSS SECTION DETAIL #9, DRAWING C400.
19. CONCRETE PATHWAY IS TO BE CONSTRUCTED ACCORDING TO CONCRETE SIDEWALK DETAIL #6, DRAWING C400.
20. CONTRACTOR TO ALLOW FOR SUPPLY/INSTALL OF MIN. 0.6M DIAMETER BOULDERS THROUGHOUT CAMPGROUND. LOCATIONS TO BE IDENTIFIED BY PCA PRIOR TO INSTALL. QTY = 50

Table 2: New Washroom Tree and Shrub Planting Quantities

Common Name	Botanical Name	Total Quantity	Quantity per cluster	Minimum Size	Spacing
Shrubs					
Prickly Rose	Rosa acicularis	15	3	#1 pot	1.0 m from other shrub clusters
Prickly Rose	Rosa acicularis	10	2	#2 pot	
Prickly Rose	Rosa acicularis	5	1	#5 pot	
Grey Leaved Willow	Salix glauca	15	3	#1 pot	
Grey Leaved Willow	Salix glauca	10	2	#2 pot	
Grey Leaved Willow	Salix glauca	5	1	#5 pot	
Common Bearberry/Kinnikinnik	Arctostaphylos uva-ursi	15	3	#1 pot	
Trees					
Trembling Aspen	Populus Tremuloides	10	N/A	#5 container	PCA to stake
Trembling Aspen	Populus Tremuloides	40	N/A	#1 container	out

- Notes
- 1 - Each shrub cluster to consist of 15 shrubs.
 - 2 - Shrub cluster and tree planting locations to be laid out by Parks Canada upon completion of rough site grading.
 - 3 - Shrub quantities above are based on 5 shrub clusters throughout vegetated areas of New Washroom Restoration Areas

Table 3: Prescribed Grass Seed Mix

Common Name	Botanical Name	Percentage
Hairy Wildrye	Elymus Innovatus	29%
Bluebunch Wheatgrass	Agropyron Spicatum	25%
Fringed Brome grass	Bromus Ciliatus	14%
Northern Wheatgrass	Agropyron Dasystachyum	26%
Prairie Junegrass	Koeleria Macrantha	6%

- Notes
- 1 - Uniformly sow grass seed at rate of 40 kg/ha using a broadcast seeder or 20 kg/ha using a "Brillion" seed drill.
 - 2 - All seeded areas to be hydromulched according to specifications following seeding.



- LEGEND
- CONSTRUCTION BOUNDARY
 - EXISTING PAVED ROAD
 - OLD WASHROOM RESTORATION AREA SEE NOTE 14
 - NEW WASHROOM RESTORATION AREA SEE NOTE 15
 - NEW CAMPSITE AREA SEE NOTE 16
 - PROPOSED SEPTIC FIELD AREA SEE NOTE 17

8	03AUG2022	ISSUED FOR TENDER	AI	JHW
7	11FEB2022	ISSUED FOR FINAL REVIEW	BWT	JHW
6	21JAN2022	ISSUED FOR REVIEW	AI	JHW
5	05NOV2021	ISSUED FOR REVIEW	AI	JW2
4	28OCT2021	ISSUED FOR CONSTRUCTION	AI	JW2
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision	
<div><div>A</div><div>C</div></div>	<div><div>A</div><div>B</div><div>C</div></div>
A detail number numéro de détail B source drawing no. de dessin no. C detail on drawing no. detail sur dessin no.	

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
WSP Canada Inc. 729 10 Street, Suite 203 Canmore, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com	

	Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
	Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

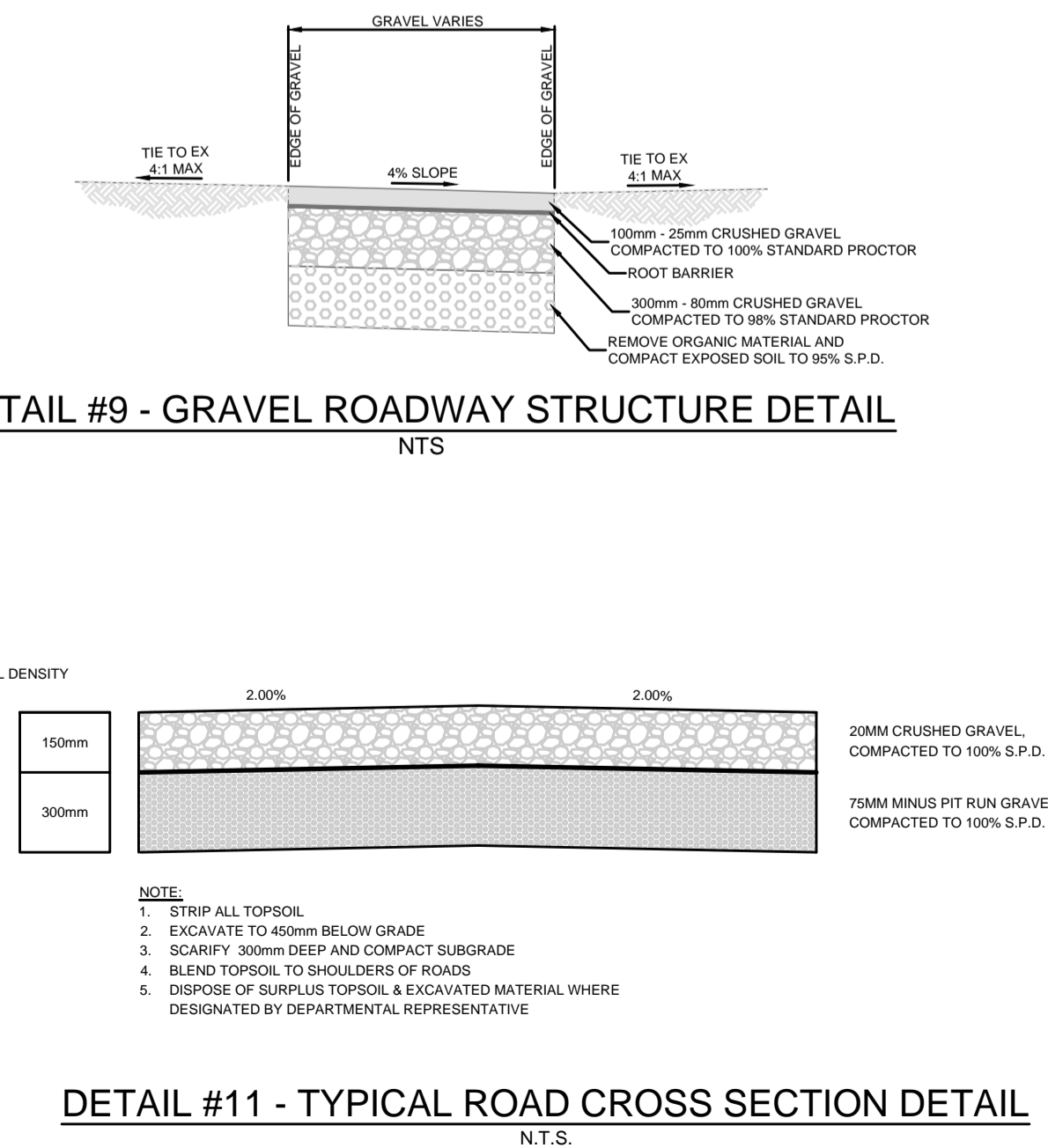
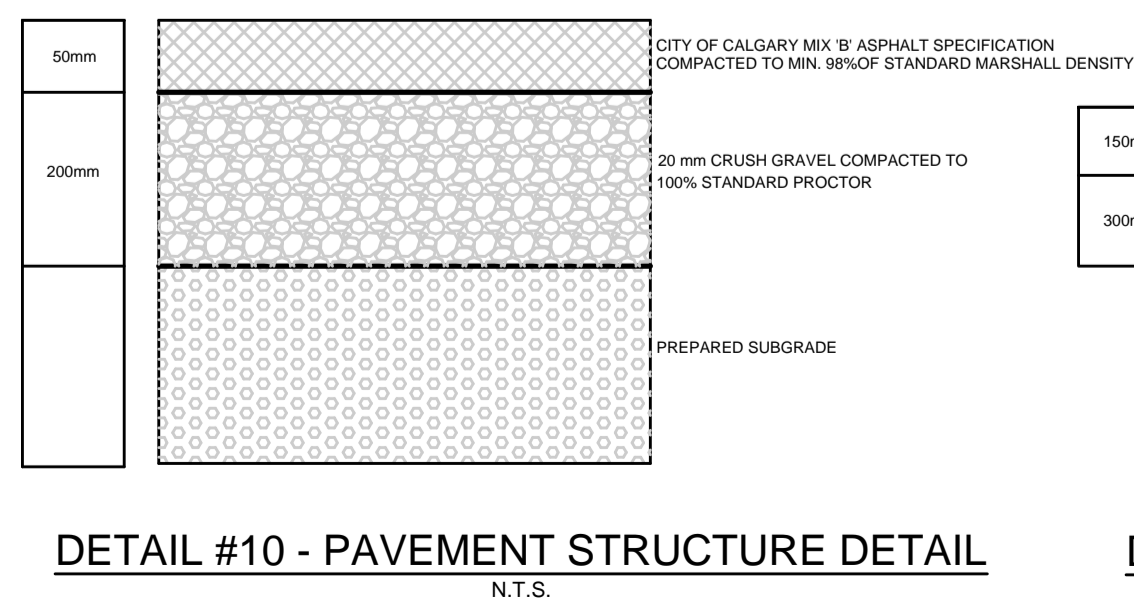
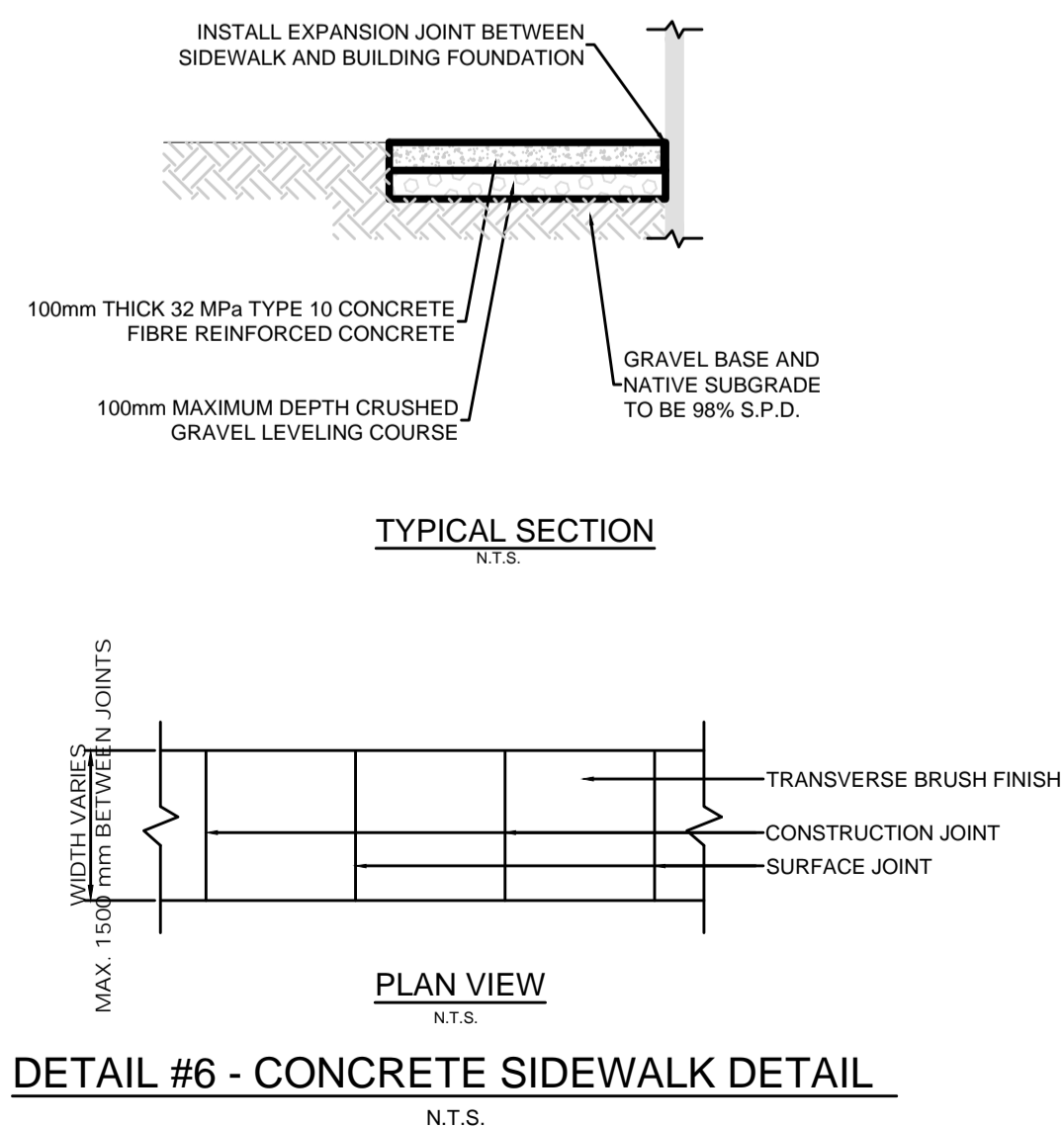
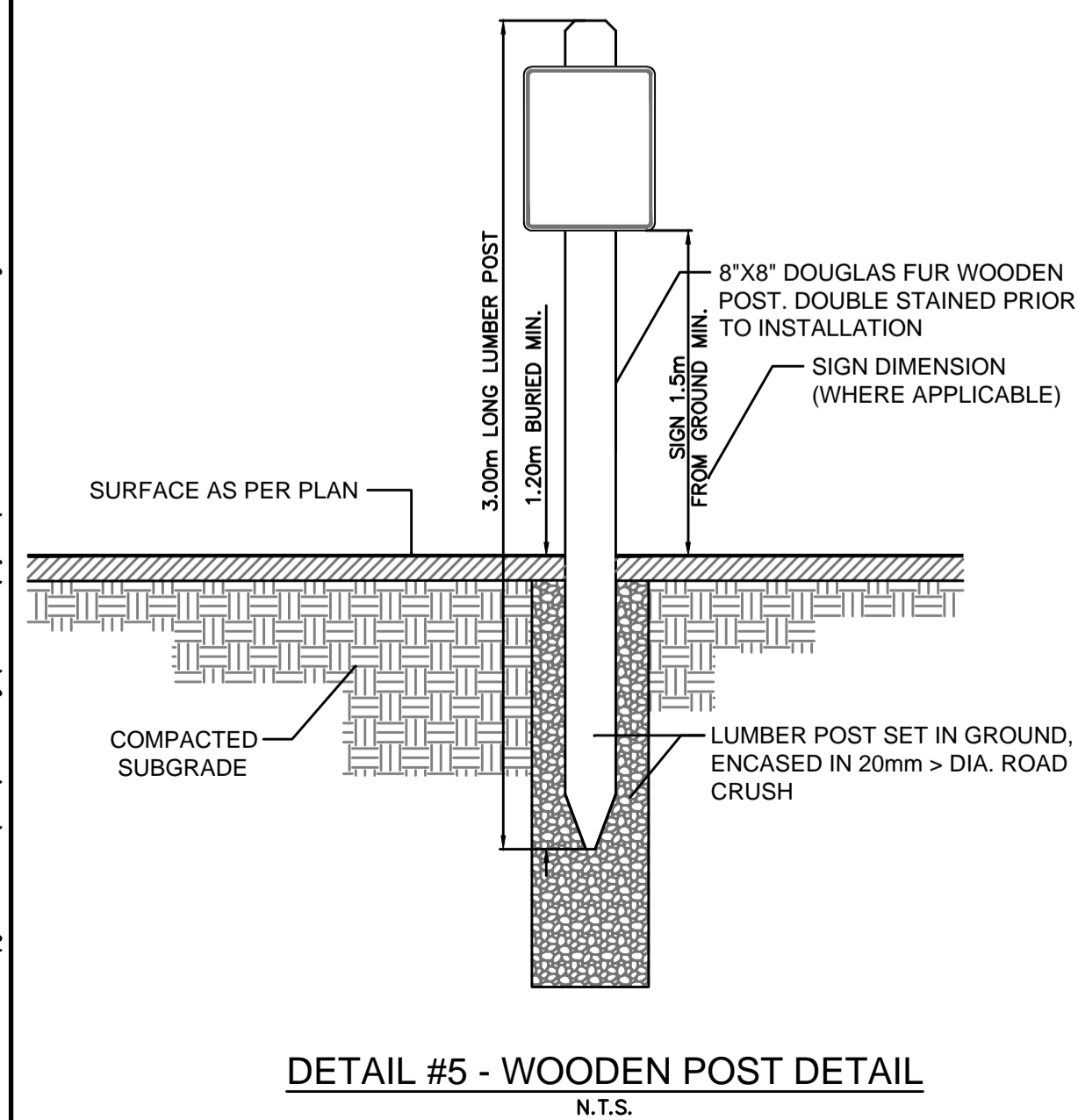
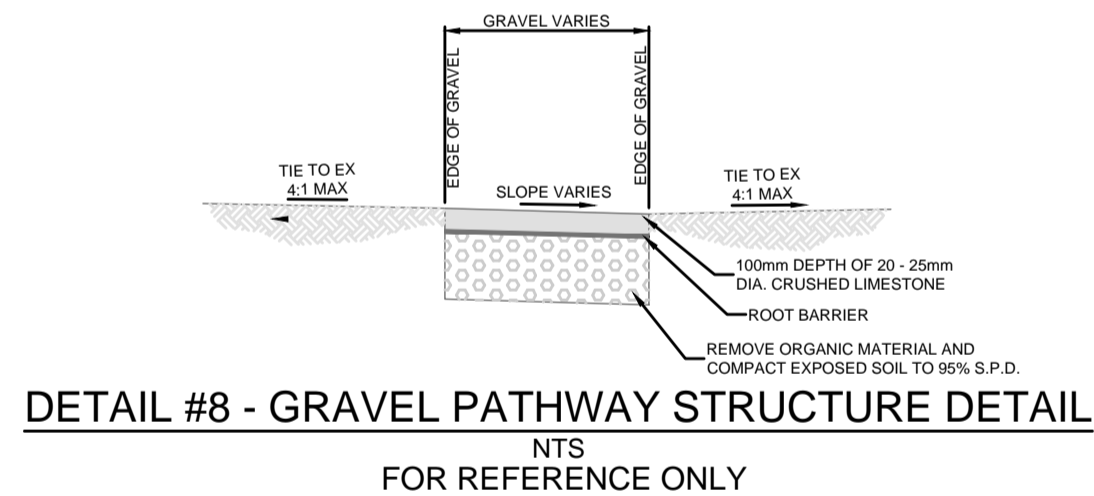
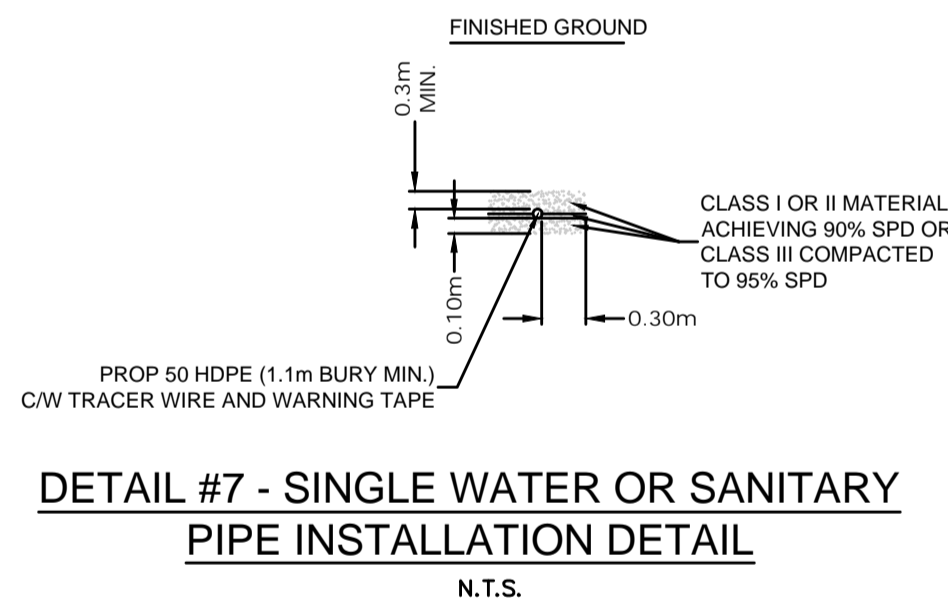
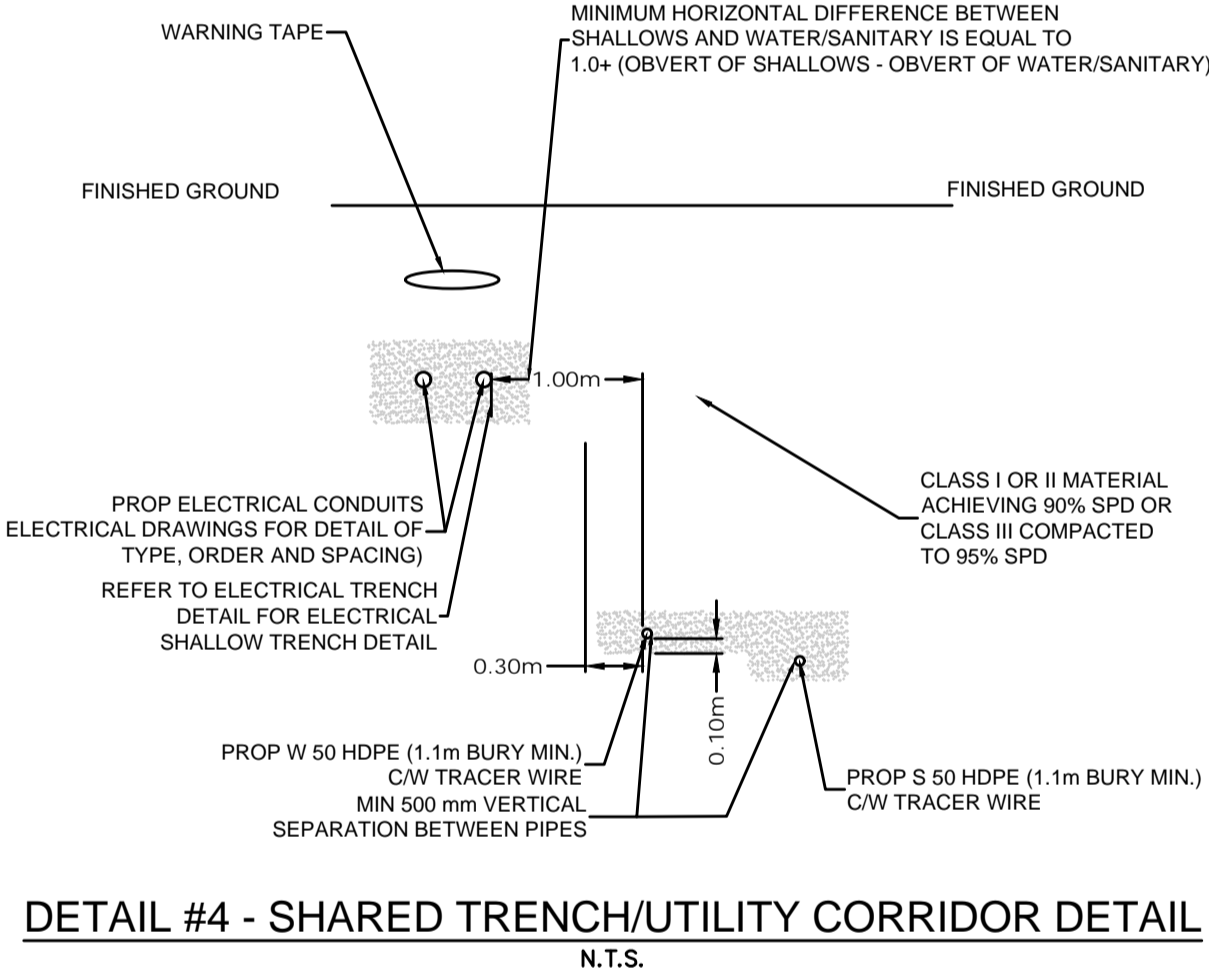
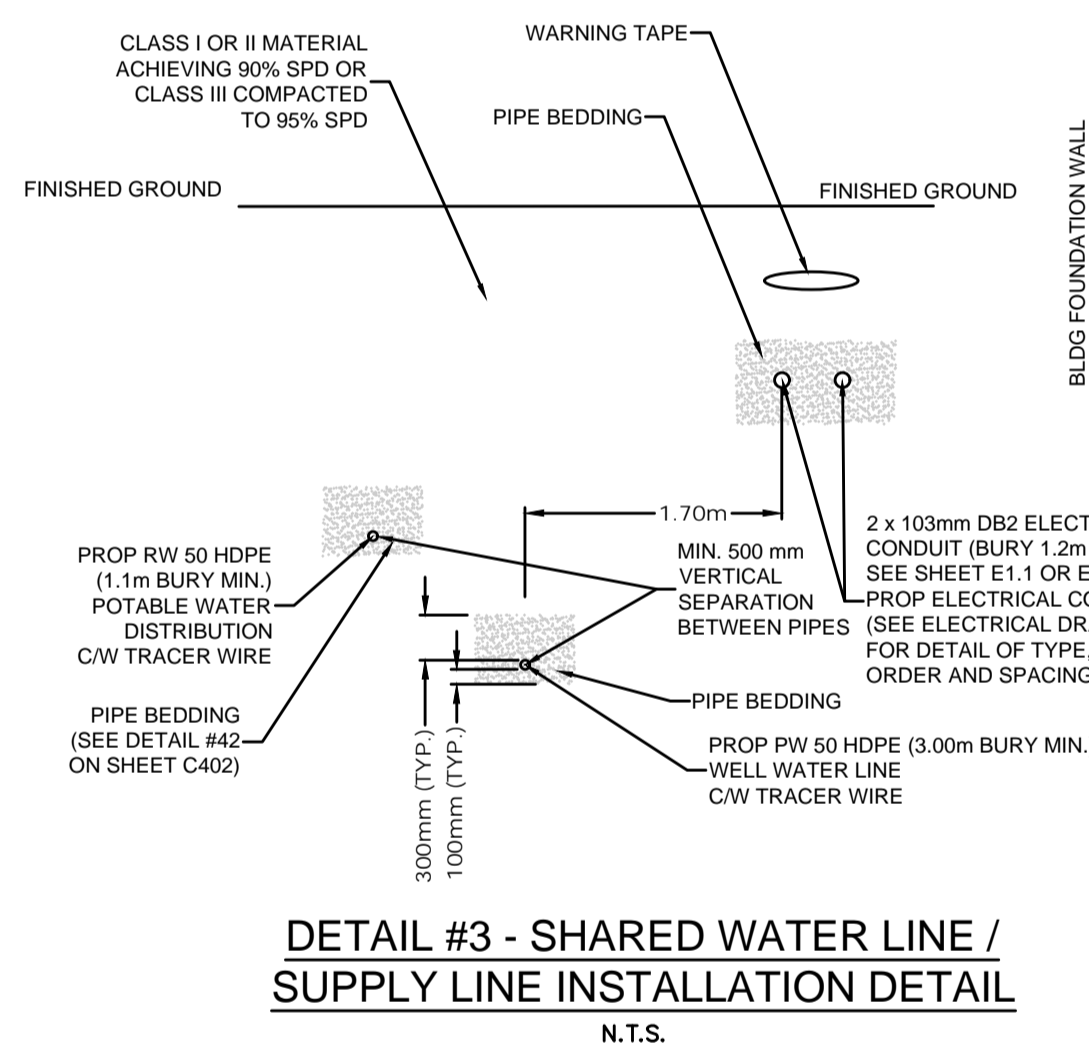
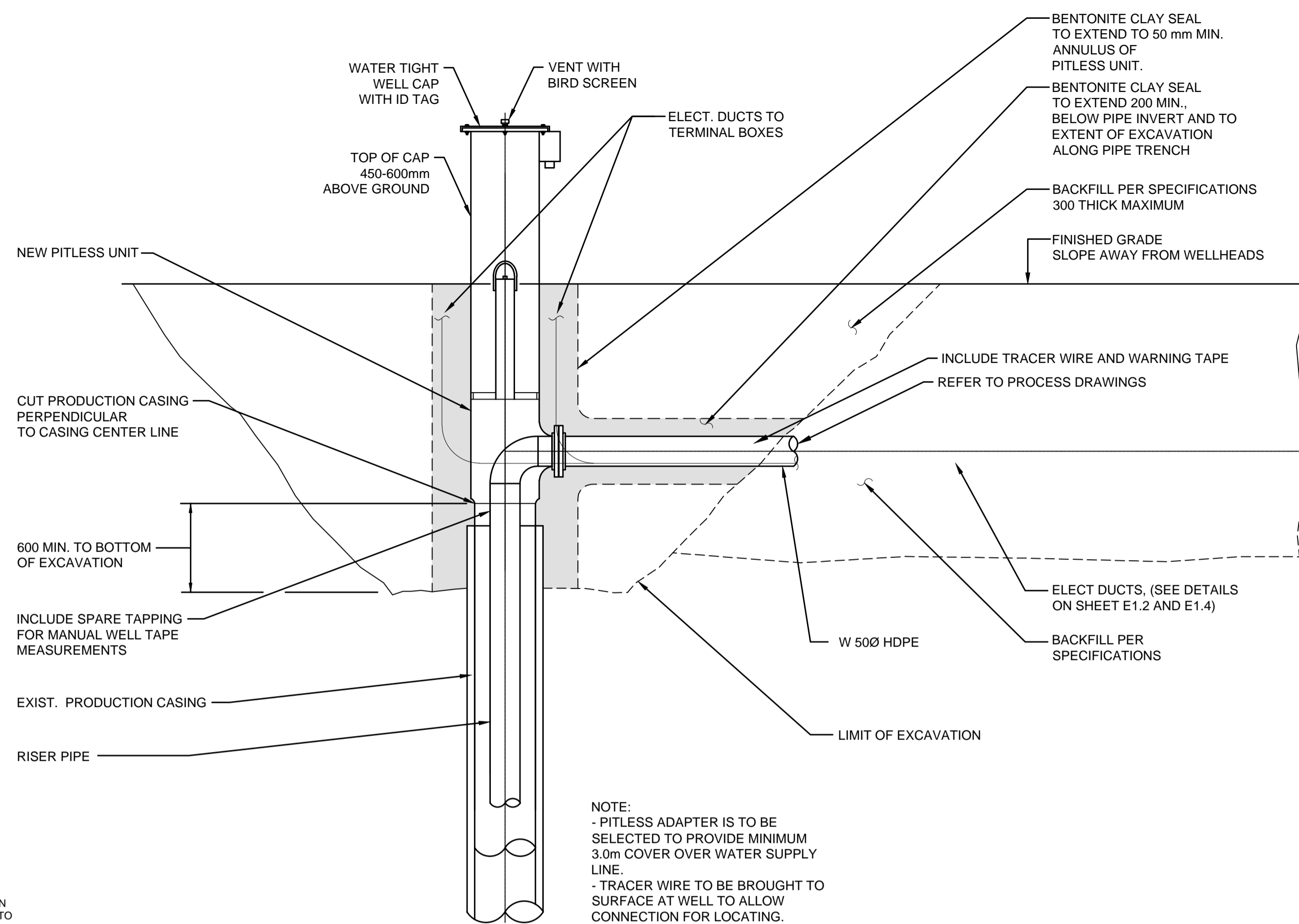
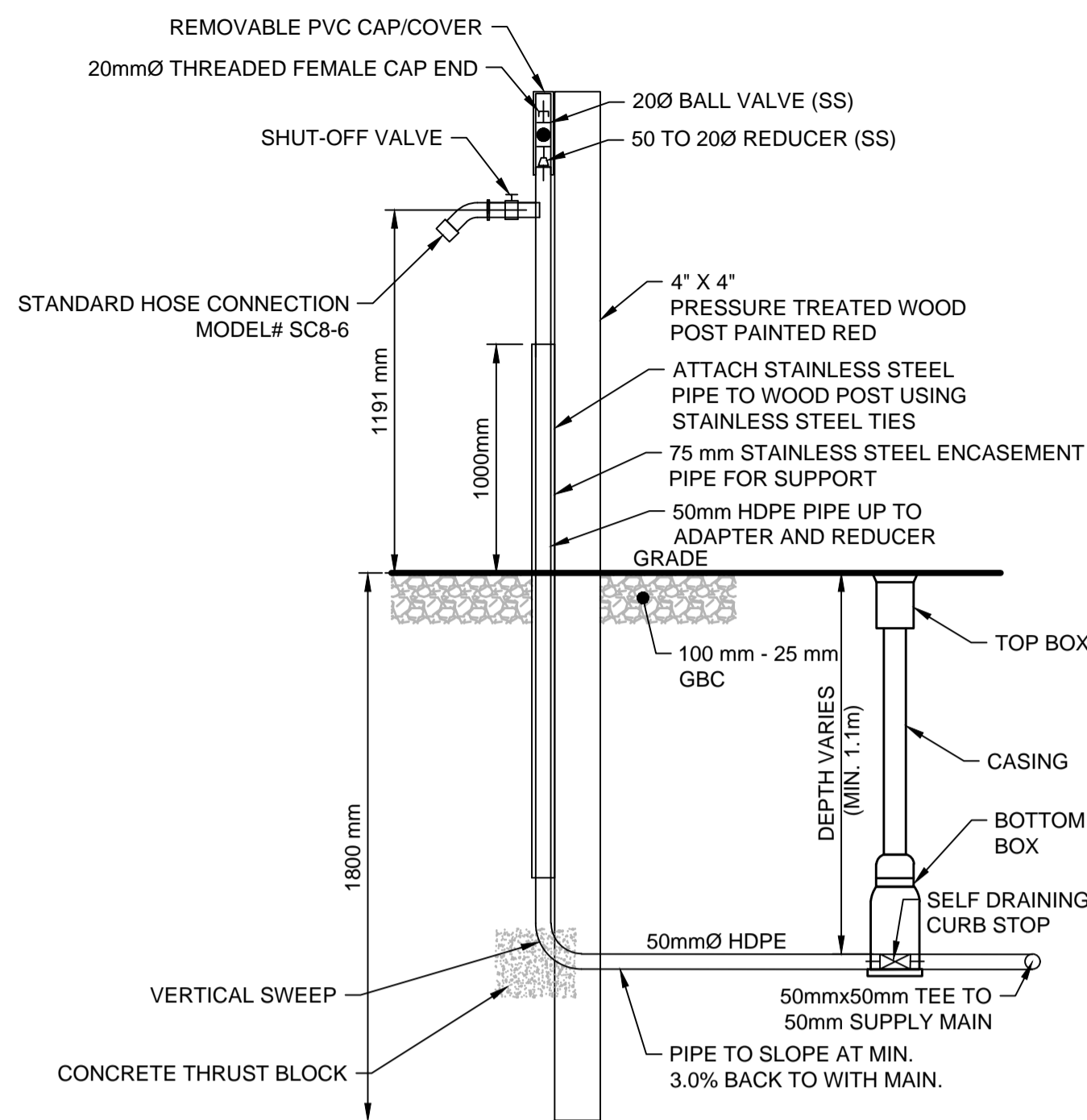
Client/client	Parks Canada Agency	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin		
SITE RESTORATION PLAN		
Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AI	Date/Date 04FEB2020
Designed by/Concept par CC	Reviewed by/Revisé par JHW	Scale/Echelle 1:750
PWGSC Project Manager/Administrateur de Projets TPSCG MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSCG
Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./No. de la feuille 5
Drawing Reference No./No. de référence du dessin C104A		33



PERMIT TO PRACTICE
WSP CANADA INC.



PM SIGNATURE: 

PM APEGA ID #: 46733

DATE: 3 August 2022

PERMIT NUMBER: P007641
The Association of Professional Engineers and
Geoscientists of Alberta (APEGA)

8	03AUG2022	ISSUED FOR TENDER	AI	JHW
7	11FEB2022	ISSUED FOR FINAL REVIEW	BWT	JHW
6	21JAN2022	ISSUED FOR REVIEW	AI	JHW
5	05NOV2021	ISSUED FOR REVIEW	AI	JW2
4	28OCT2021	ISSUED FOR CONSTRUCTION	AI	JW2
No.	Date/Date	Description/Description	Drawn Dessiné	by par Approuvé

Revision / Revision	
<p>A detail number numéro de detail</p> <p>B source drawing no. de dessin no.</p> <p>C detail on drawing no. detail sur dessin no.</p>	 

Consultant's Name
Nom de l'expert-conseil


WSP

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729 10 Street, Suite 203
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Eng. Storm
Sceau de l'ingénieur



3 August 2009

	Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
	Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client	 Parks Canada Agence	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

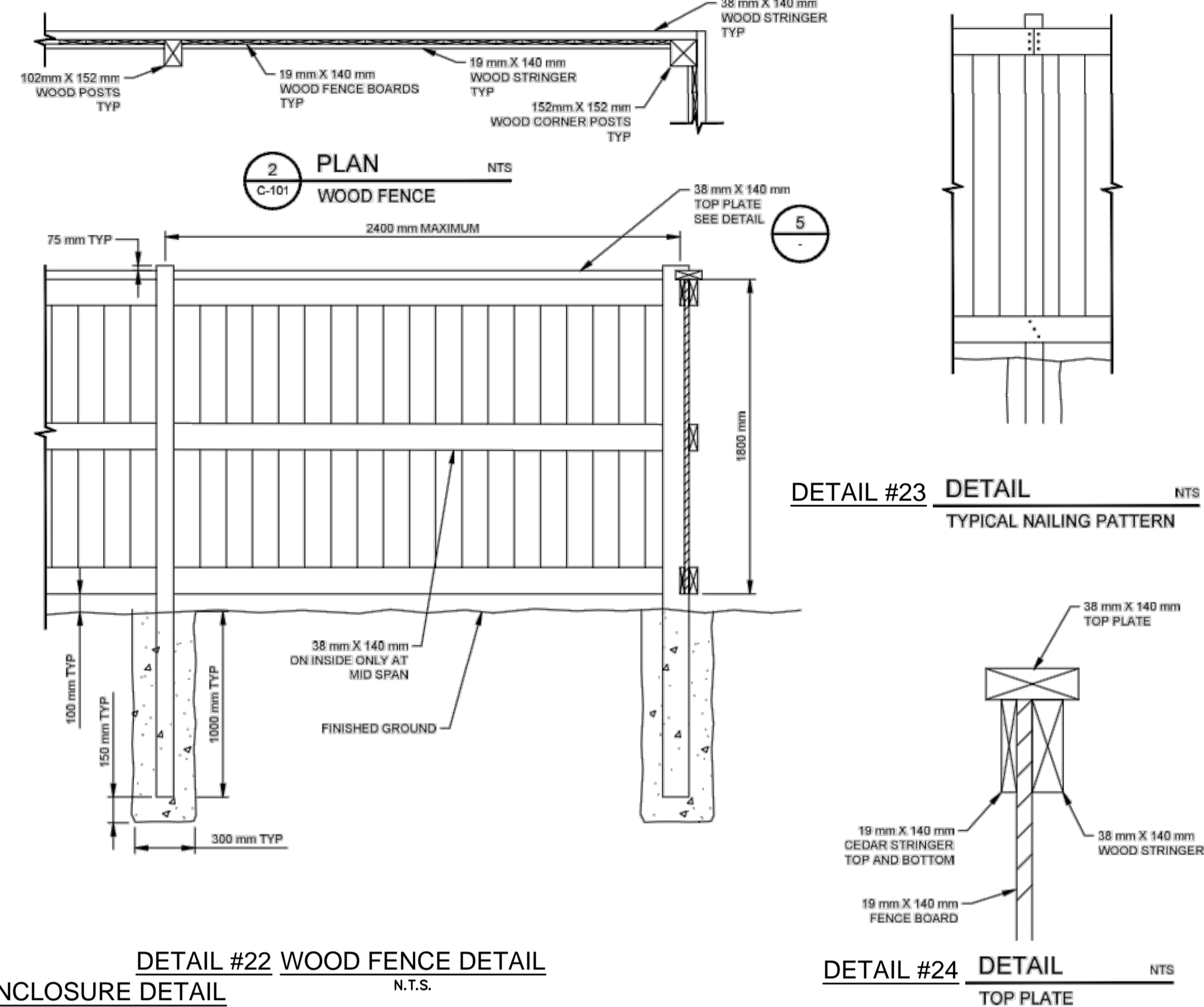
CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

CIVIL DETAILS

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AI	Date/Date 04FEB2020
Reviewed by/Concept par CC	Reviewed by/Revisé par JHW	Scale/Echelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TP5GC MATTHEW WHALEN		
Client Acceptance/Acceptation du client _____		Approved by/Approuvé par _____
Park Responsible/Officer/Agent Responsable _____		PWGSC Project Manager/Administrateur de Projets TP5GC _____
Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 7
Drawing Reference No./No. de référence du dessin C400		33



8	03AUG2022	ISSUED FOR TENDER	AI	JHW
7	11FEB2022	ISSUED FOR FINAL REVIEW	BWT	JHW
6	21JAN2022	ISSUED FOR REVIEW	AI	JHW
5	05NOV2021	ISSUED FOR REVIEW	AI	JW2
4	28OCT2021	ISSUED FOR CONSTRUCTION	AI	JW2
No.	Date/Date	Description/Description	Drawn Dessiné by par	Approved Approuvé

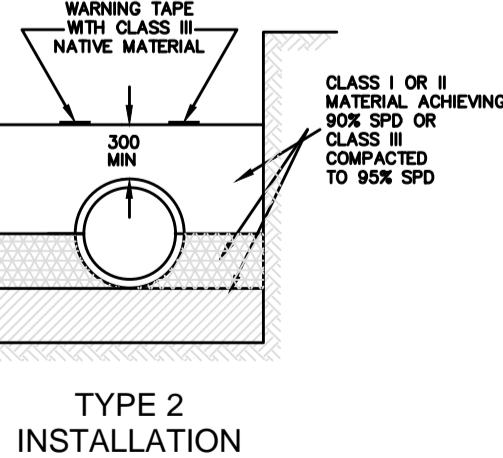
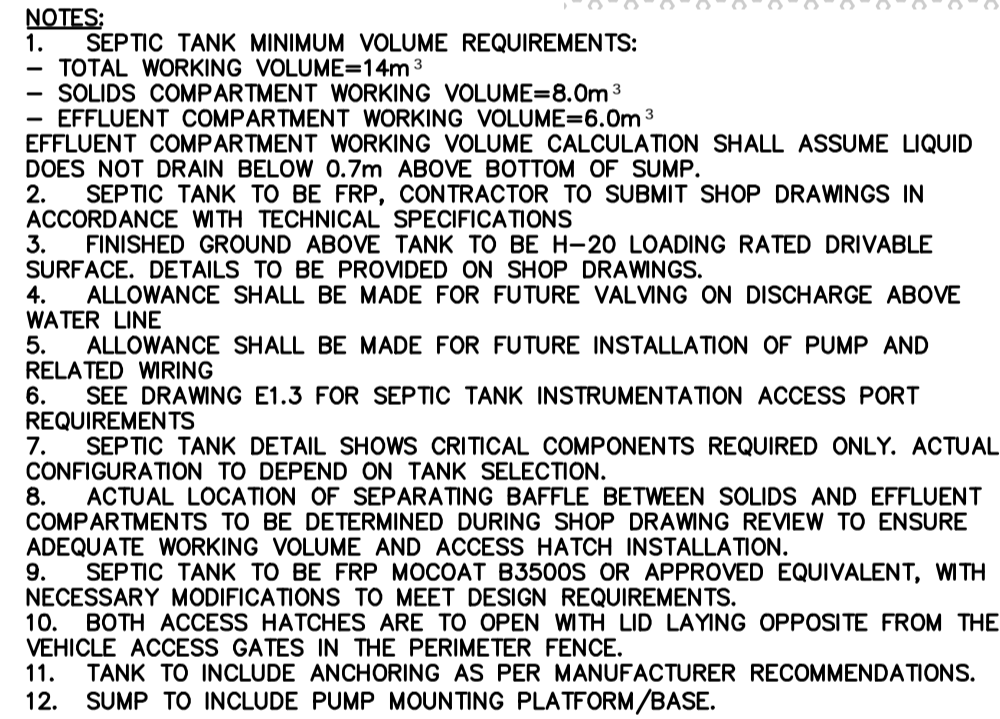
Ouest et Nord
du Canada

Drawing Reference No./No. de référence du dessin

33

DETAIL #26 STACKED BOULDER RETAINING WALL TYPICAL CROSS SECTION
N.T.S.

PERMIT NUMBER: P007641
The Association of Professional Engineers and
Geoscientists of Alberta (APEGA)



- DETAIL #42 – BEDDING AND BACKFILL – PIPE ZONE DETAILS
N.T.S.



The drawing consists of two parts: a front elevation on the left and a section view on the right labeled "SECTION A-A".

Front Elevation (Left):

- The overall width is 36.
- The overall height is 24-1/8.
- The base is a thick rectangular block with a height of 6.
- There is a small vertical detail on the left side of the main body.
- A section line A-A is shown on the right side of the base, with an arrow pointing downwards.

Section View A-A (Right):

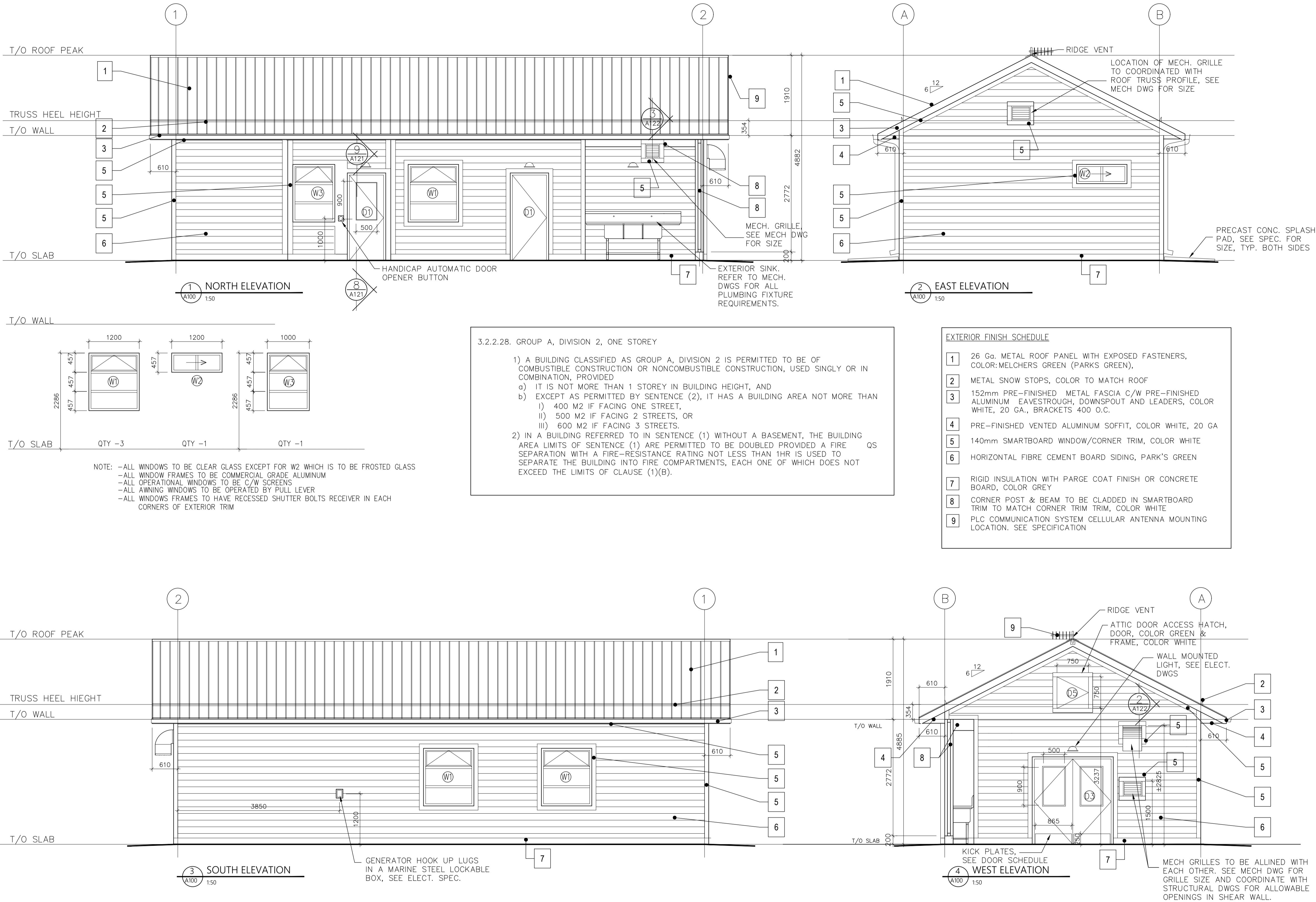
- The section is a vertical rectangle with a dashed outline.
- The overall height is 24-1/8, divided into three equal vertical sections of 8 each.
- The overall width is 36, divided into three equal horizontal sections of 12 each.
- There are four small square features, one in each of the four quadrants of the central 12x12 area.
- The section is labeled "SECTION A-A" at the bottom.

N.T.S.
NOTE: ALL DIMENSIONS ARE IMPERIAL



Drawing Reference No./No. de référence du dessin	C403	33
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LEGEND

STUDIO C ARCHITECTURE

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11	08/08/22	ISSUED FOR TENDER	CD/RF	CD
10	05/07/22	ISSUED FOR PCA REVIEW	CD/RF	CD
9	02/06/22	ISSUED FOR PCA REVIEW	CD/RF	CD
8	09/02/22	ISSUED FOR FINAL REVIEW	CD/RF	CD
7	02/02/22	ISSUED FOR REVIEW	CD/RF	CD
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1	14/02/20	ISSUED FOR 65% REVIEW	CW/RF	RF
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

A detail number
numéro de détail

B source drawing no.
de dessin no.

C detail on drawing no.
détail sur dessin no.

Consultant's Name
Nom de l'expert-conseil

FINDLAYGROUP
OF COMPANIES

202 729 10 ST
CANMORE, AB
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Eng. Stamp
Sceau de l'ingénieur



Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

Client Services Team
Southern Alberta
Operations Branch

Le Client Entretien l'Équipe
Alberta Méridional
Branche d'Opérations

Canada

Client/client



Parks Canada
Agency

L'Agence Parcs
Canada

Western and
Northern Region

Ouest et Nord
du Canada

Project title/Titre du projet

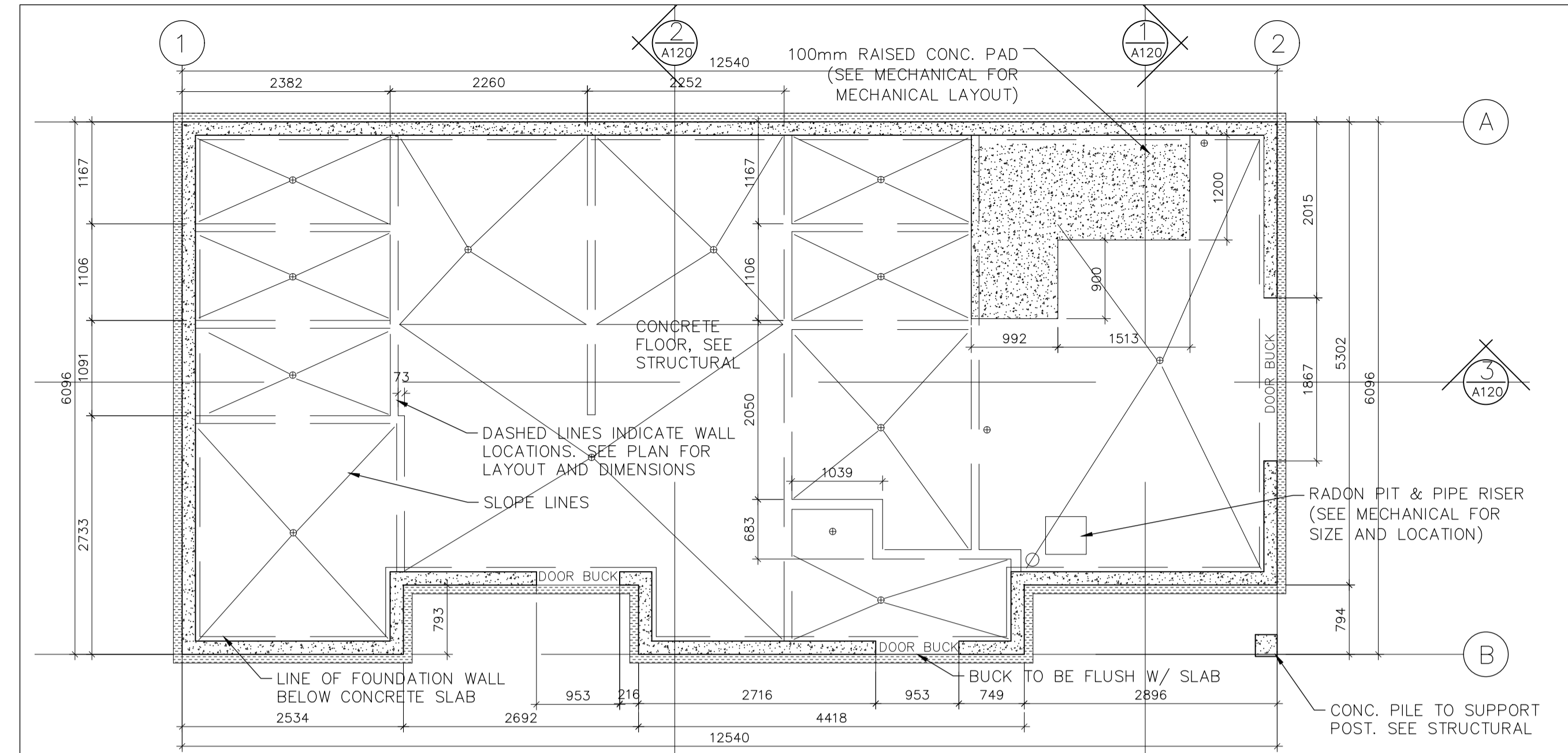
CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

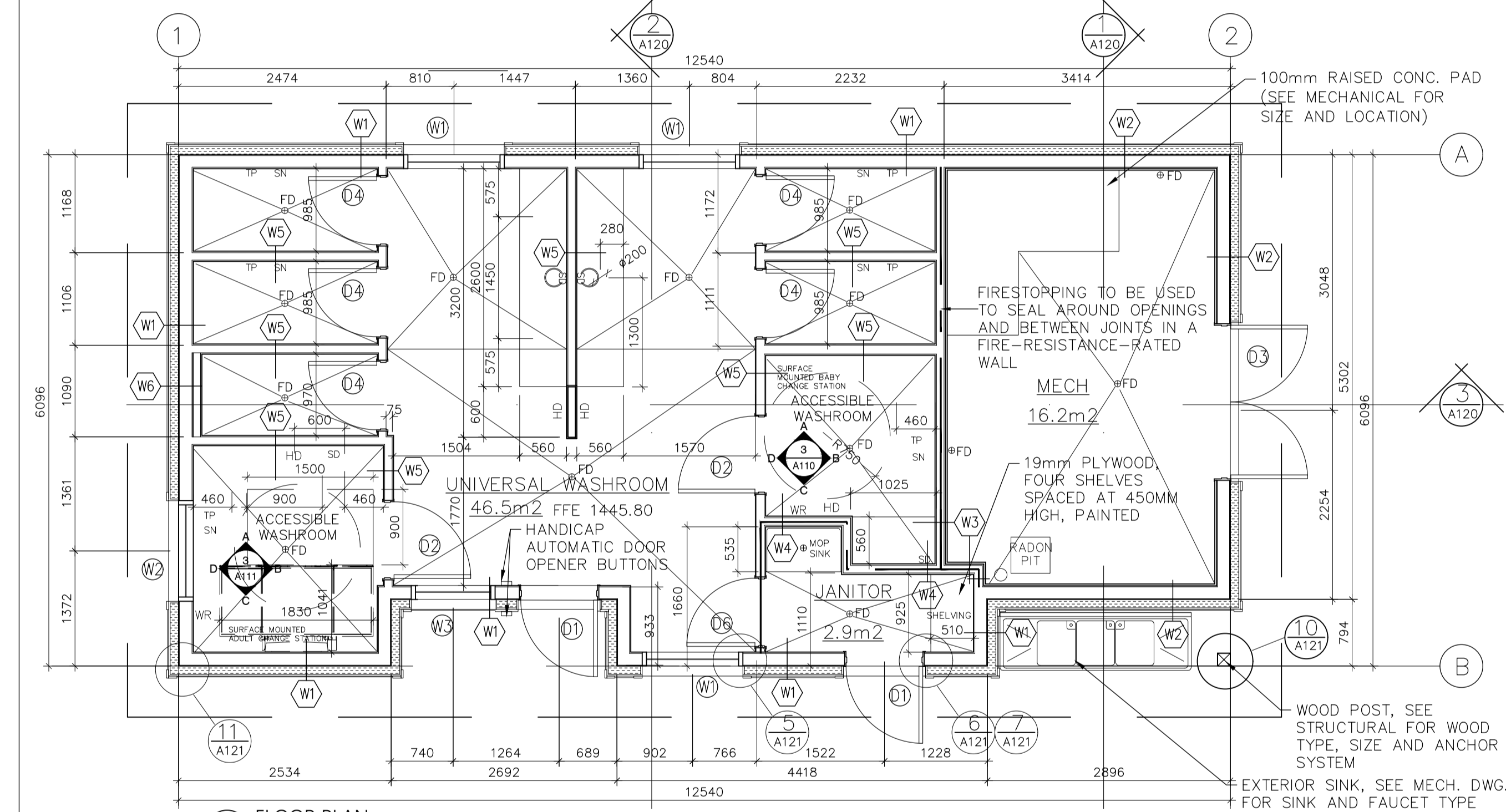
WASHROOM BUILDING
ELEVATIONS

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par CW	Date/Date 04FEB2020
Designed by/Concept par FDG	Reviewed by/Revisé par RF	Scale/Échelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 19M-01812-00	Asset No./No. du-bien -	Sheet No./ No. de la feuille 10
Drawing Reference No./No. de référence du dessin A100		33



1 FOUNDATION PLAN

HATCH INDICATES 200mm HIGH X 140mm WIDE RAISED CURB



2 FLOOR PLAN

FIRE SEPARATION C/W 1 HR. FIRE RESISTANCE RATING

WALLS

- W1 TYPICAL EXTERIOR WALL**
EXTERIOR FINISH (SEE ELEVATIONS)
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX.
KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX. WITH VERTICAL PANEL RAILS @ SIDING MANUFACTURE RECOMMENDED SPACING, KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm EPS RIGID INSULATION
SOPREMA WRAP OR SIDING MANUFACTURE'S EQUIVALENT
9.5mm PLYWOOD SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
(SEE ADDITION STRUCTURAL NOTES RE: STUD SPACING)
R-20 INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.
3.2mm FRP PANELING, FLOOR TO CEILING FOR PANEL
- W2 TYPICAL MECHANICAL ROOM EXTERIOR WALL**
EXTERIOR FINISH (SEE ELEVATIONS)
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX.
KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX. WITH VERTICAL PANEL RAILS @ SIDING MANUFACTURE RECOMMENDED SPACING, KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm EPS RIGID INSULATION
SOPREMA WRAP OR SIDING MANUFACTURE'S EQUIVALENT
9.5mm PLYWOOD SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
(SEE ADDITION STRUCTURAL NOTES RE: STUD SPACING)
R-20 INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED)
19mm PLYWOOD SHEATHING
3.2mm FRP PANELING, FLOOR TO CEILING FOR PANEL

- W3 TYPICAL MECHANICAL ROOM INTERIOR WALL**
3.2mm FRP PANELING, FLOOR TO CEILING (MECH. ROOM SIDE)
19mm PLYWOOD SHEATHING (MECH. ROOM SIDE)
1 LAYERS 15.9mm FIRE & WATER RESISTANT G.W.B. (MECH. ROOM)
6 MIL. POLY. VAPOUR BARRIER
38x89 WOOD STUDS @ 400mm O.C.
R-20 SOUND BATT INSULATION
15.9mm FIRE & MOLD RESISTANT G.W.B. (WASHROOM SIDE)
3.2mm FRP PANELING, FLOOR TO CEILING (WASHROOM SIDE)
- W4 TYPICAL INTERIOR WALL**
3.2mm FRP PANELING, FLOOR TO CEILING (WHRM. ROOM SIDE)
15.9mm FIRE AND MOLD RESISTANT G.W.B. (WHRM. ROOM SIDE)
38x89 WOOD STUDS @ 400mm O.C.
15.9mm FIRE AND MOLD RESISTANT G.W.B.
12.7mm PLYWOOD SHEATHING (JANITOR ROOM SIDE)
3.2mm FRP PANELING, FLOOR TO CEILING (JANITOR ROOM SIDE)
- W5 TYPICAL INTERIOR WALL**
3.2mm FRP PANELING, FLOOR TO CEILING
12.7mm MOLD RESISTANT G.W.B.
38x89 WOOD STUDS @ 400mm O.C.
R-20 SOUND BATT INSULATION
12.7mm MOLD RESISTANT G.W.B.
3.2mm FRP PANELING, FLOOR TO CEILING
- W6 EXTERIOR WALL**
EXTERIOR FINISH (SEE ELEVATIONS)
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX.
KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX. WITH VERTICAL PANEL RAILS @ SIDING MANUFACTURE RECOMMENDED SPACING, KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm EPS RIGID INSULATION
SOPREMA WRAP OR SIDING MANUFACTURE'S EQUIVALENT
9.5mm PLYWOOD SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
(SEE ADDITION STRUCTURAL NOTES RE: STUD SPACING)
R-20 INSULATION
6 MIL POLY. VAPOUR BARRIER
38x89 WOOD STUDS @ 400mm O.C.
12.7mm MOLD RESISTANT G.W.B.
3.2mm FRP PANELING, FLOOR TO CEILING FOR PANEL

ROOFS

- R1 OVER INTERIOR HEATED SPACES**
26 GA. CORRUGATED STEEL ROOF TO BE INSTALLED ON 19mm x 89mm WOOD STRAPPING @ MAXIMUM 600MM CENTERS, WESTFORM METALS, PROFILE:DURACLAD OR EQUIVALENT, COLOR MELCHERS GREEN (PARKS GREEN)
1 LAYER SOPREMA ROOF WRAP EQUIVALENT
MIN. 915mm WIDE ICE & WATER SHIELD EAVE PROTECTION
15.5mm EXTERIOR GRADE PLYWOOD SHEATHING W/ H-CLIPS TRUSSES AS PER MANUFACTURER / ENG
R-40 BATT (MIN) INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED, PRIMED AND PAINTED WERE EXPOSED, COLOUR WHITE)
BULKHEAD AND FALSE WASHROOM CEILINGS 38x89 WOOD STUBS @400 O.C
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED, PRIMED AND PAINTED, COLOUR WHITE)
- R2 OVER INTERIOR MECHANICAL & JANITOR ROOMS**
26 GA. CORRUGATED STEEL ROOF TO BE INSTALLED ON 19mm x 89mm WOOD STRAPPING @ MAXIMUM 600MM CENTERS, WESTFORM METALS, PROFILE:DURACLAD OR EQUIVALENT, COLOR MELCHERS GREEN (PARKS GREEN)
1 LAYER SOPREMA ROOF WRAP EQUIVALENT
MIN. 915mm WIDE ICE & WATER SHIELD EAVE PROTECTION
15.5mm EXTERIOR GRADE PLYWOOD SHEATHING W/ H-CLIPS TRUSSES AS PER MANUFACTURER / ENG
R-40 BATT (MIN) INSULATION
6 MIL POLY. VAPOUR BARRIER
2-LAYERS OF 15.9 mm FIRE & MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED,PRIMED AND PAINTED WERE EXPOSED, COLOUR WHITE)

ACCESSORY SCHEDULE

- GRAB BAR AS PER A.B.C. 2019 *
- GAR** GARBAGE RECEPTACLE: FROST, MODEL: 303-3NL OR EQUIVALENT *
- HD** HAND DRYER *
- TP** TOILET PAPER DISPENSER: FROST, MODEL: 169 OR EQUIVALENT *
- SN** SANITARY NAPKIN DISPOSAL: FROST, MODEL: 641 EQUIVALENT *
- SD** SOAP DISPENSER: ULINE, MODEL: H-1130 OR EQUIVALENT *

NOTE:
ALL COUNTER TOPS TO BE C/W 100mm BACKSPLASH

(*) = ITEMS TO BE SUPPLIED BY PARKS CANADA

CONTRACTOR TO INSTALL ALL ITEMS PER MANUFACTURE RECOMMENDATIONS

PROVIDE WOOD BLOCKING / BACKING IN WALL FOR ALL MOUNTED WASHROOM ACCESSORIES

WASHROOM ACCESSORIES

- 1 WATER CLOSET *
- 2 TOILET PAPER DISPENSER *
- 3 GRAB BAR (610mm X 610mm @ 120 ANGLE) *
- 4 STAINLESS STEEL TILTED MIRROR 600mm X 760mm *
- 5 SURFACE MOUNTED HAND DRYER *
- 6 SOAP DISPENSER *
- 7 SURFACE MOUNTED WASTE RECEPTACLE *
- 8 SURFACE MOUNTED STAINLESS STEEL COAT HOOK *
- 9 BATHROOM SINK WITH FAUCET *
- 10 FOLDING CHANGE STATIONS:
BABY CHANGE STATION:FROST MODE 1214-S OR EQUIVALENT. *
ADULT CHANGE STATION:PRESSALIT R8594572000 MODEL OR EQUIVALENT. *
- 11 SANITARY NAPKIN DISPOSAL *

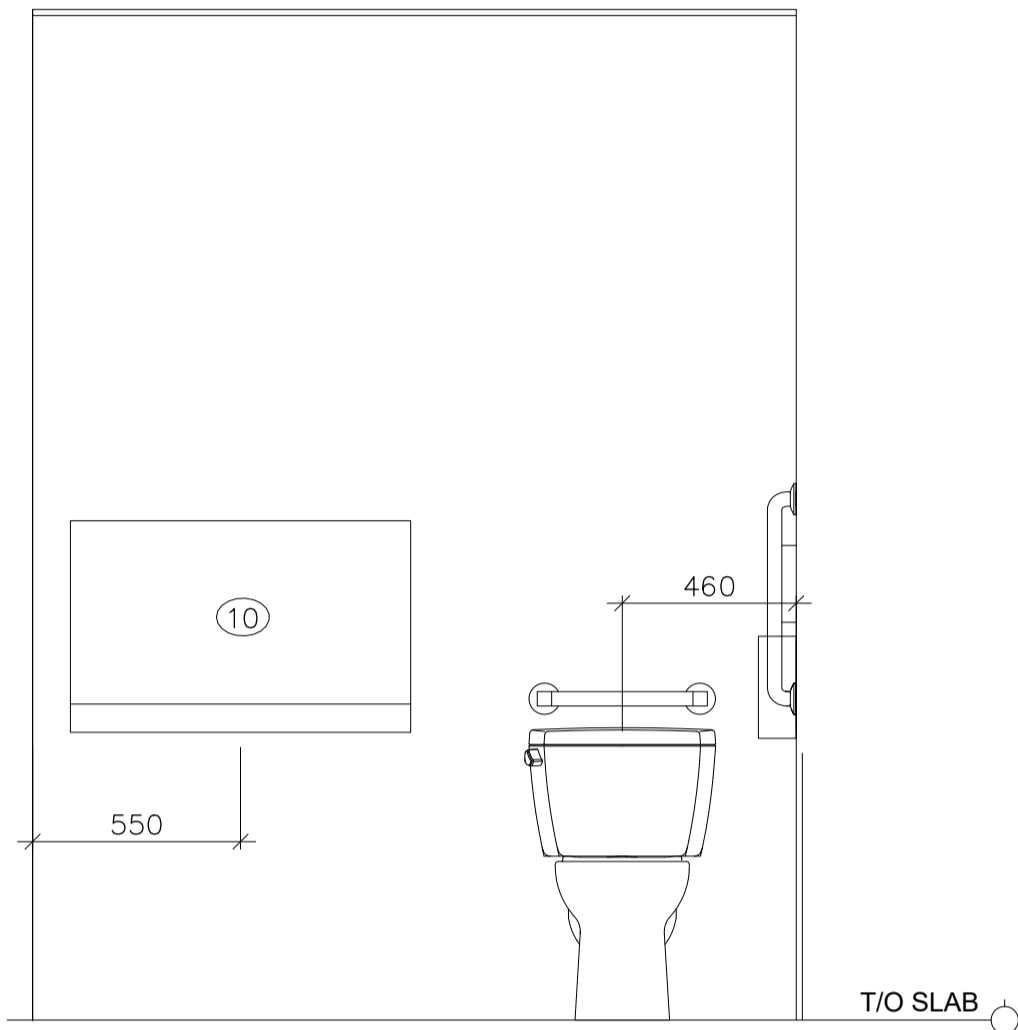
NOTE: (*) = ITEMS TO BE SUPPLIED BY PARKS CANADA

CONTRACTOR TO INSTALL ALL ITEMS PER MANUFACTURE RECOMMENDATIONS

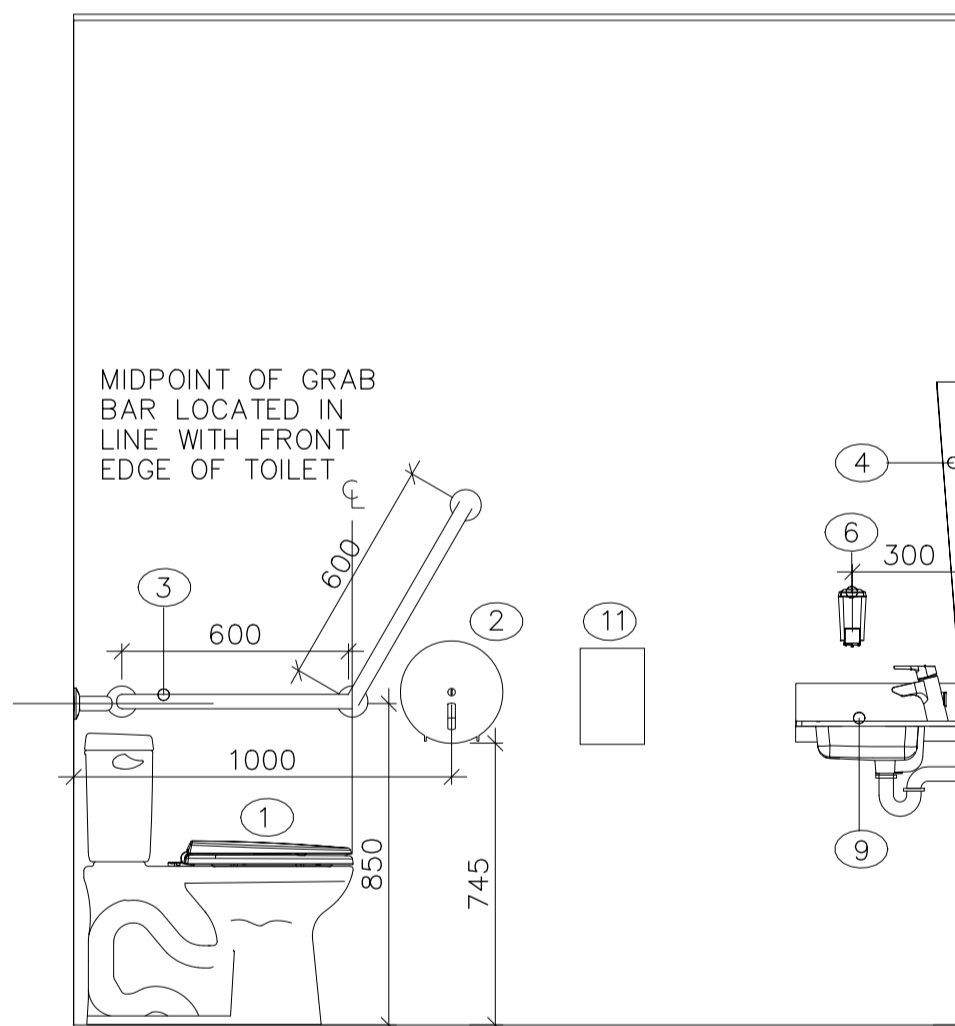
PROVIDE WOOD BLOCKING / BACKING IN WALL FOR ALL MOUNTED WASHROOM ACCESSORIES

DOOR SCHEDULE

- 01 915mm X 2032mm - INSULATED STEEL DOOR WITH STAINLESS KICK PLATE 200 X 865, BOTH SIDES, FRONT ENTRY DOOR ONLY, PULL/ PUSH DOOR HANDLES, EXTERIOR LOCKING DEADBOLT, DOOR SWING NO FURTHER THAN 90°
- 02 915MM X 2032mm - HOLLOW STEEL DOOR WITH STAINLESS KICK PLATE 150 X 760 BOTH SIDES, LEVER DOOR HANDLES, INTERIOR LOCKING DEADBOLT
- 03 1830mm X 2032mm - INSULATED STEEL DOOR WITH STAINLESS KICK PLATE 250 X 865 ON BOTH SIDES AND SECURITY FILM FROSTED GLASS, LEVER DOOR HANDLES, PANIC BAR ON BOTH DOORS AND ONE DOOR WITH TOP AND BOTTOM DOOR LATCH
- 04 813MM X 2032mm - HOLLOW STEEL DOOR WITH STAINLESS KICK PLATE 150 X 760, LEVER DOOR HANDLES, INTERIOR LOCKING DEADBOLT
- 05 750mm X 750mm - HOLLOW STEEL DOOR, W/ DEADBOLT, INTERIOR SWING
- 06 813MM X 2032mm - FIRE RATED STEEL DOOR WITH STAINLESS KICK PLATE 150 X 760, LEVER DOOR HANDLES, EXTERIOR LOCKING DEADBOLT



3 INTERIOR ELEVATION A



3 INTERIOR ELEVATION B

- F1 FLOOR SLAB:**
CONCRETE FLOOR SLAB (SEE STRUCTURAL)
FLOOR FINISH IN ALL OTHER AREAS TO BE NON-SLIP COMMERCIAL GRADE EPOXY COATING
- F2 FLOOR SLAB:**
CONCRETE FLOOR SLAB (SEE STRUCTURAL)
FLOOR FINISH IN MECH. AND JANITOR ROOM TO BE POLISHED AND SEALED CONCRETE.

KEYNOTES:

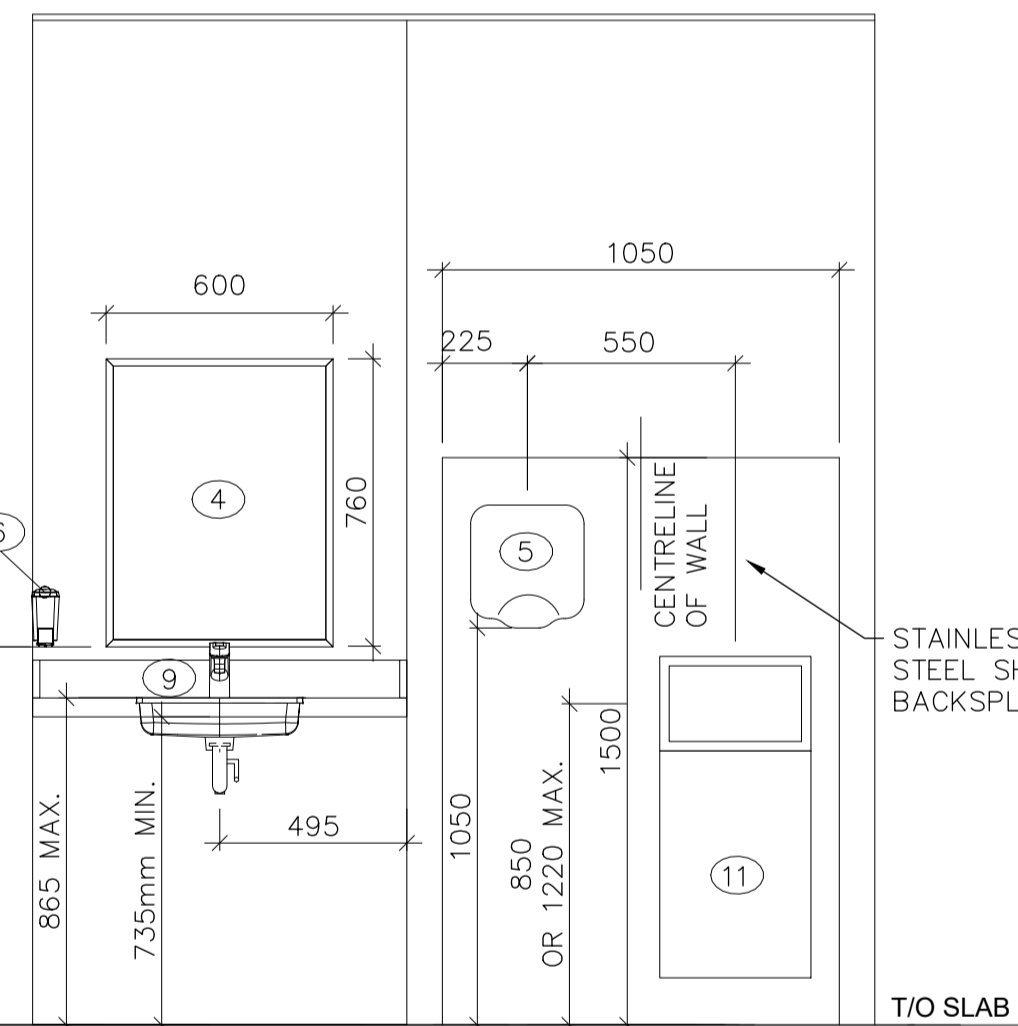
ALL COUNTERTOPS ARE TO BE:

- SOLID SURFACE (CORIAN OR EQUIVALENT)
- GROUP C OR BETTER SQUARE WRAP EDGE PROFILE
- SQUARE WRAP EDGE PROFILE
- LIGHT GREY, BLUE PEBBLE OR SIMILAR
- TO INCLUDE 125MM APRON
- TO INCLUDE BACKSPLASH

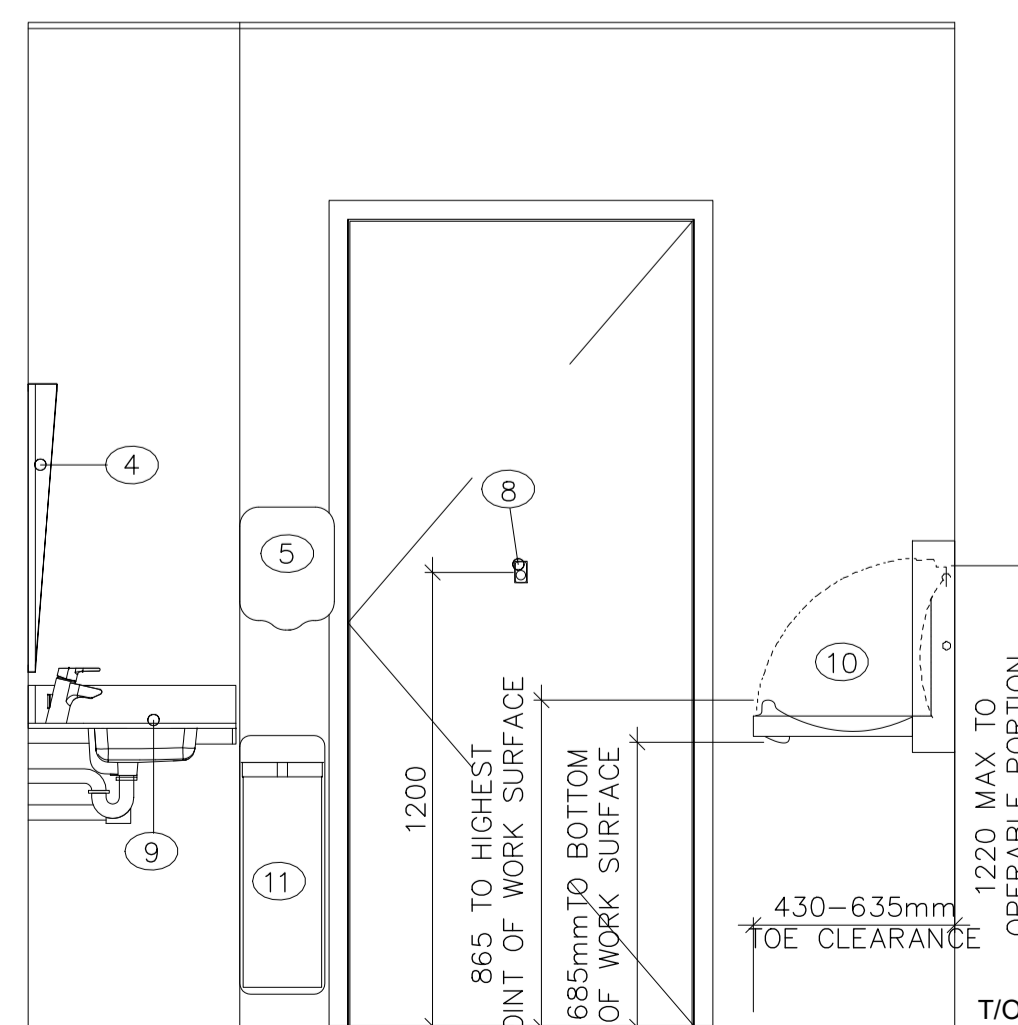
(CONTRACTOR TO SUBMIT SAMPLE TO PCA FOR REVIEW PRIOR TO INSTALLATION)

NOTE:

- TRUSSES AS PER MANUFACTURE AND STRUCTURAL FRAMING PLANS
- INSULATION/VENTILATION STOPS AS REQUIRED
- ATTIC INSULATION TO BE RODENT PROOF
- SHEET METAL ROOFING SAMPLE TO BE SUBMITTED TO PCA FOR REVIEW AND PRIOR TO ORDERING.
- W3,W4 AND W5 WALLS TO HAVE PLASTIC LUMBER SILL PLATES IN CONTACT CONCRETE SURFACES IN ACCORDANCE WITH DETAILS
- SEE A111 FOR SPECIFIED FRP PANELING COLOUR FOR ALL INTERIOR WALLS.
- BATT INSULATION TO BE SELECTED TO BE MOISTURE AND MOLD RESISTANT.
- CONTRACTOR TO COMPLETE SAMPLE OF EPOXY FLOORING FOR DEPARTMENTAL REPRESENTATIVE APPROVAL PRIOR TO PROCEEDING WITH INSTALLATION THROUGH ENTIRE WASHROOM.



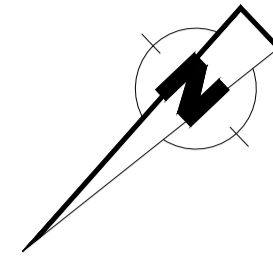
3 INTERIOR ELEVATION C



3 INTERIOR ELEVATION D

LEGEND

STUDIO C ARCHITECTURE
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5307 La Salle Crescent S.W. Calgary, Alberta T3E 5Y6



No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
11	08/08/22	ISSUED FOR TENDER	CD/RF	CD
10	05/07/22	ISSUED FOR PCA REVIEW	CD/RF	CD
9	02/06/22	ISSUED FOR PCA REVIEW	CD/RF	CD
8	09/02/22	ISSUED FOR FINAL REVIEW	CD/RF	CD
7	02/02/22	ISSUED FOR REVIEW	CD/RF	CD
6	22/12/21	ISSUED FOR REVIEW	CD/RF	CD
5	15/11/21	ISSUED FOR REVIEW	SM/RF	RF
4	10/11/21	ISSUED FOR REVIEW	SM/RF	RF
3	03/09/21	ISSUED FOR REVIEW	SM/RF	RF
2	03/08/21	ISSUED FOR REVIEW	SM/RF	RF
1	14/02/20	ISSUED FOR 65% REVIEW	CW/RF	RF

Revision / Revision

- A detail number
numéro de detail
- B source drawing no.
de dessin no.
- C detail on drawing no.
detail sur dessin no.

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
FINDLAYGROUP OF COMPANIES 202 729 10 ST CANMORE, AB T1W 2A3	

Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

Client/client Parks Canada Agency	L'Agence Parcs Canada
Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN CAMPGROUND (PHASE 2)

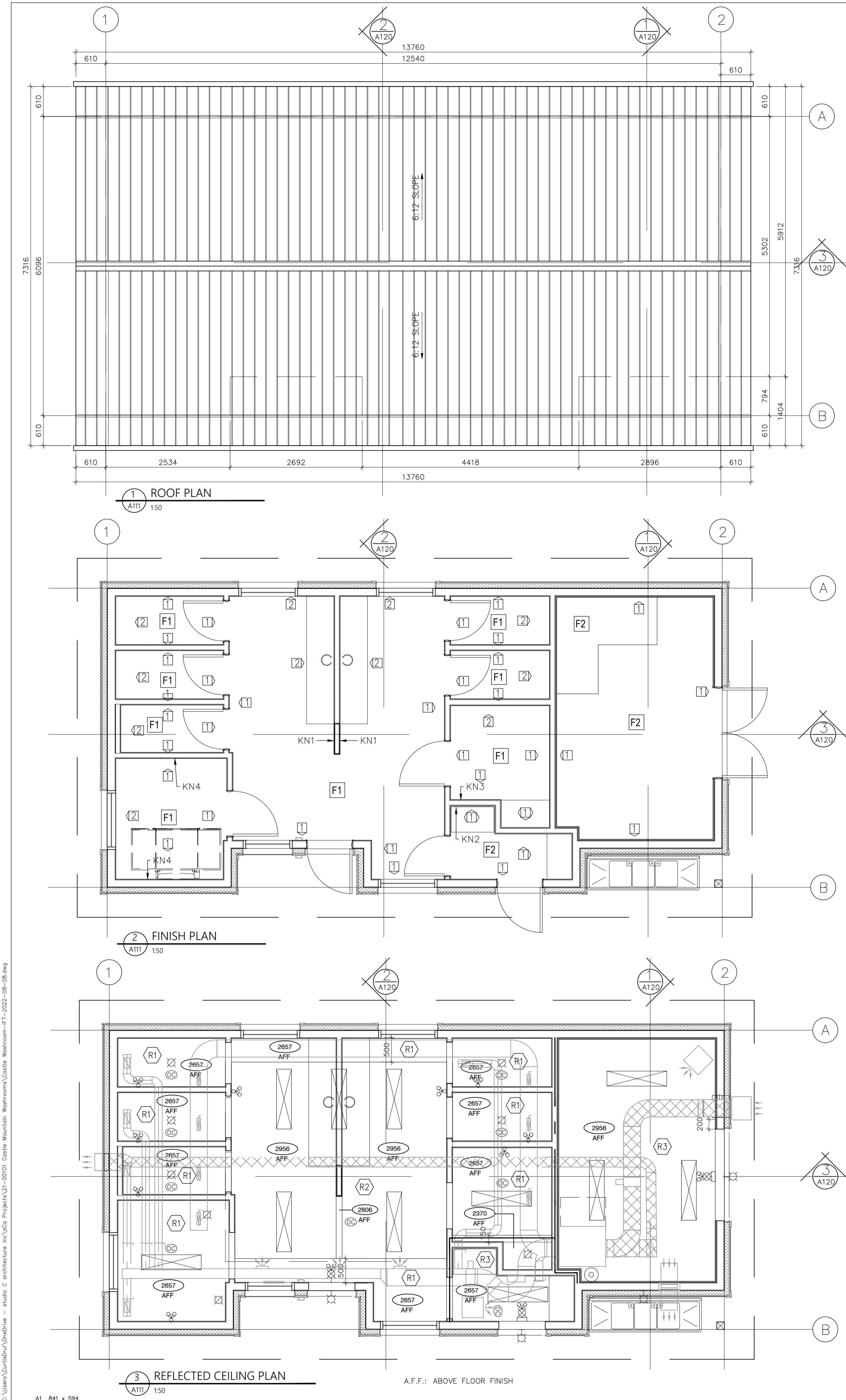
BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

WASHROOM BUILDING FOUNDATION PLAN FLOOR PLAN

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par CW	Date/Date 04FEB2020
Designed by/Concepté par FDG	Reviewed by/Revisé par RF	Scale/Echelle AS SHOWN

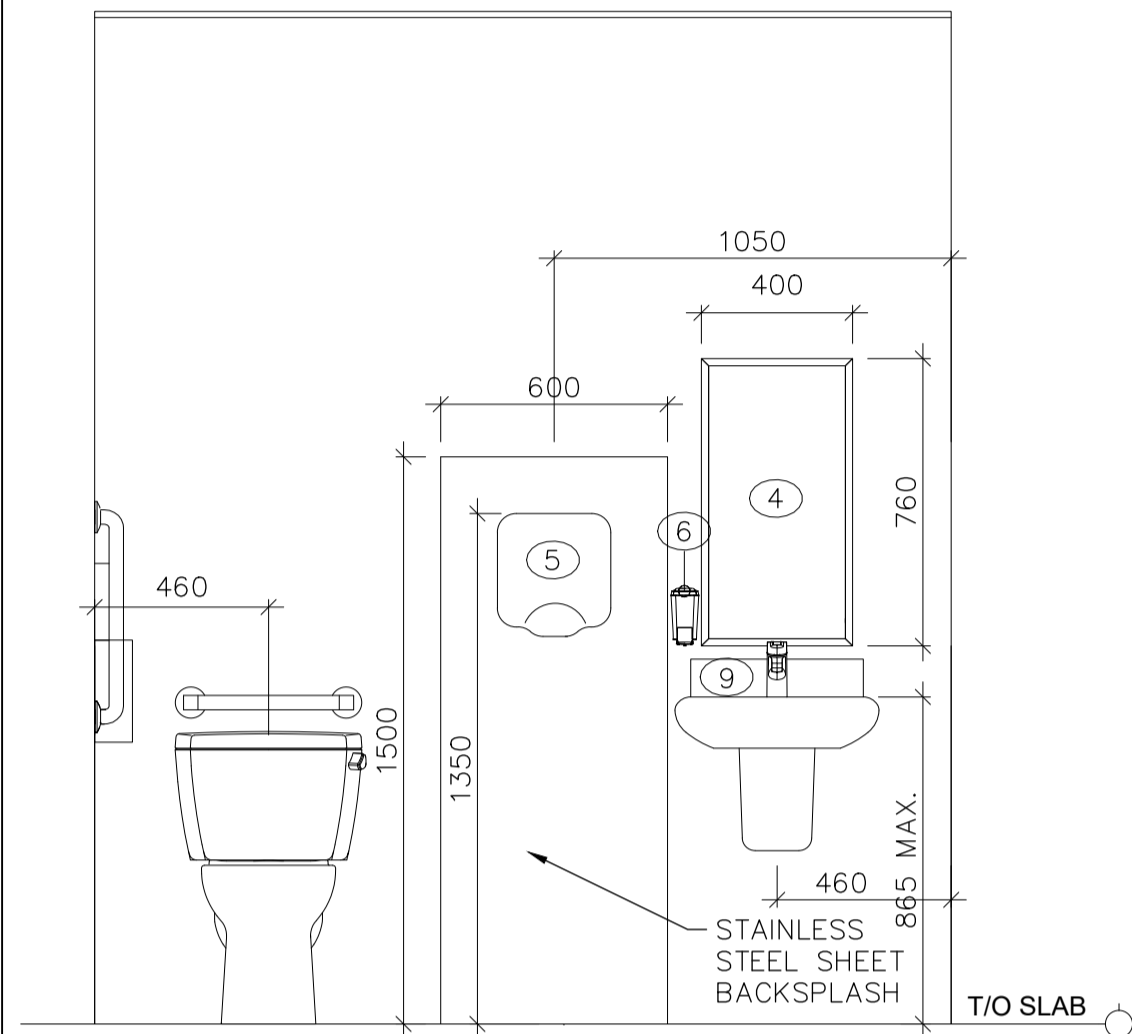
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 11 33
Drawing Reference No./No. de référence du dessin A110		



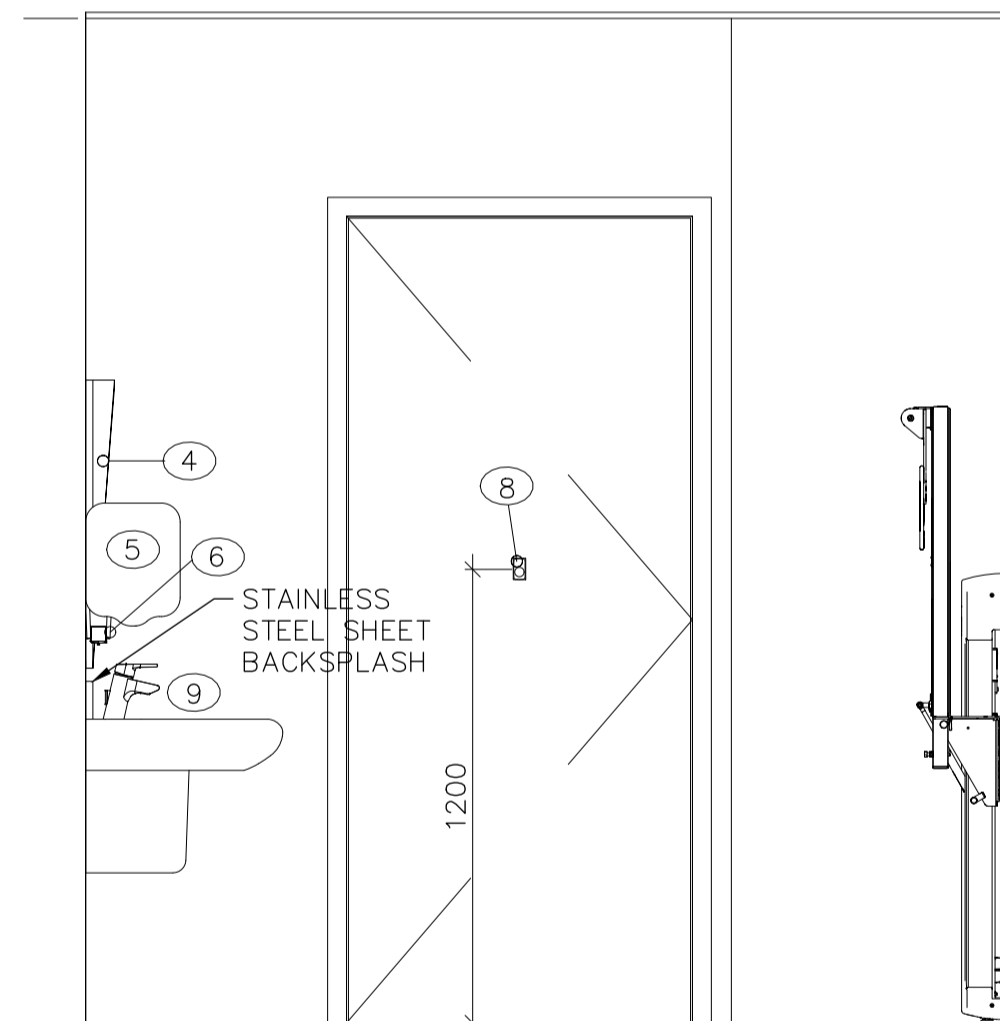
ACCESSORY SCHEDULE	
	GRAB BAR AS PER A.B.C. 2019 *
	GARBAGE RECEPTACLE: FROST, MODEL: 303-3NL OR EQUIVALENT *
	HAND DRYER *
	TOILET PAPER DISPENSER: FROST, MODEL: 169 OR EQUIVALENT *
	SANITARY NAPKIN DISPOSAL: FROST, MODEL: 641 EQUIVALENT *
	SOAP DISPENSER: ULINE, MODEL: H-1130 OR EQUIVALENT *
NOTE: ALL COUNTER TOPS TO BE C/W 100mm BACKSPLASH (*) = ITEMS TO BE SUPPLIED BY PARKS CANADA CONTRACTOR TO INSTALL ALL ITEMS PER MANUFACTURE RECOMMENDATIONS PROVIDE WOOD BLOCKING / BACKING IN WALL FOR ALL MOUNTED WASHROOM ACCESSORIES	

INTERIOR FINISH SCHEDULE	
	FRP PANELS--WHITE
	FRP PANELS--GREY
	FLOOR TYPE--CLEAR SEALED CONCRETE
	FLOOR TYPE--COMMERCIAL GRADE CLEAR TEXTURED EPOXY COATING

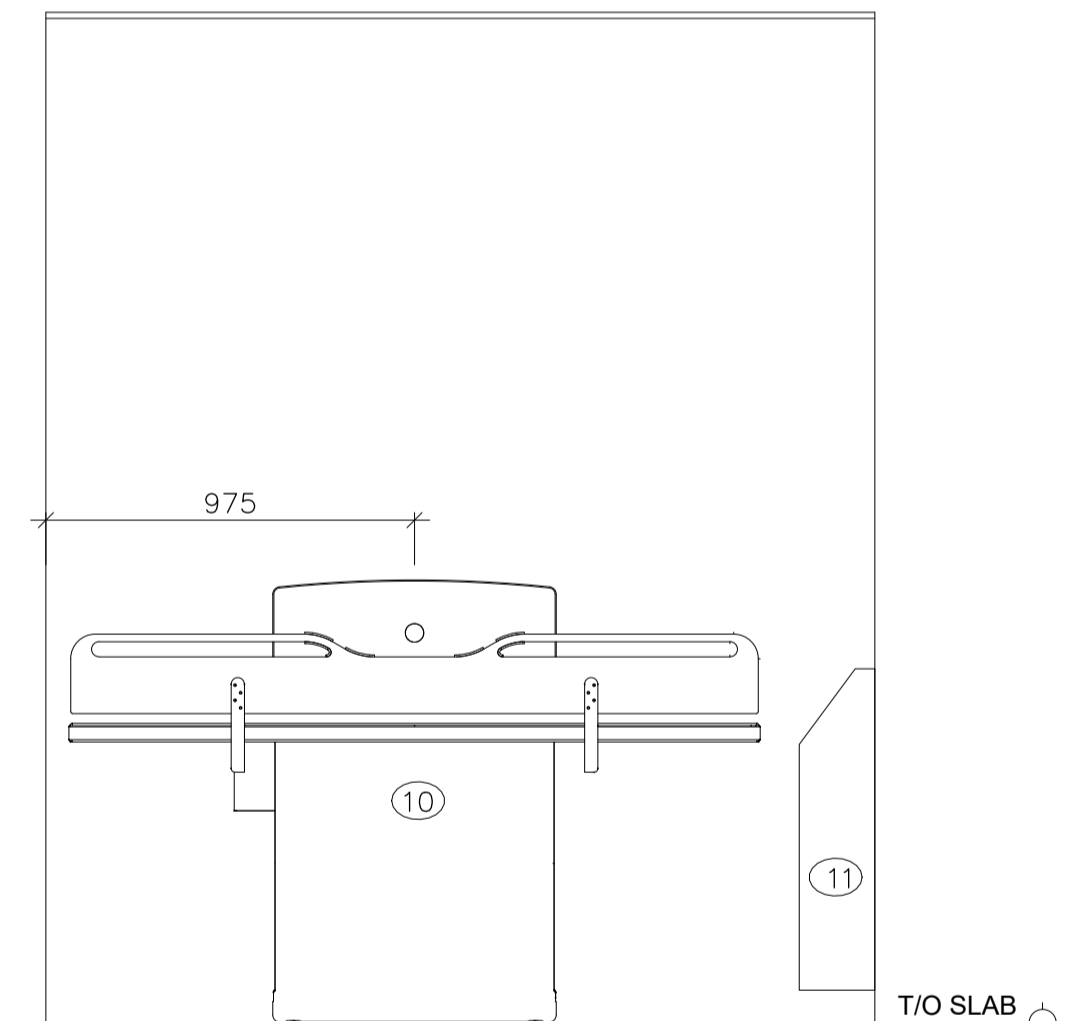
WASHROOM ACCESSORIES	
	WATER CLOSET *
	TOILET PAPER DISPENSER *
	GRAB BAR (610mm X 610mm @ 120 ANGLE) *
	STAINLESS STEEL TILTED MIRROR 600mm X 760mm *
	SURFACE MOUNTED HAND DRYER *
	SOAP DISPENSER *
	SURFACE MOUNTED WASTE RECEPTACLE *
	SURFACE MOUNTED STAINLESS STEEL COAT HOOK *
	BATHROOM SINK WITH FAUCET *
	FOLDING CHANGE STATIONS: BABY CHANGE STATION:FROST MODE 1214--S OR EQUIVALENT. * ADULT CHANGE STATION:PRESSALIT R8594572000 MODEL OR EQUIVALENT. * SANITARY NAPKIN DISPOSAL *
NOTE: (*) = ITEMS TO BE SUPPLIED BY PARKS CANADA CONTRACTOR TO INSTALL ALL ITEMS PER MANUFACTURE RECOMMENDATIONS PROVIDE WOOD BLOCKING / BACKING IN WALL FOR ALL MOUNTED WASHROOM ACCESSORIES	



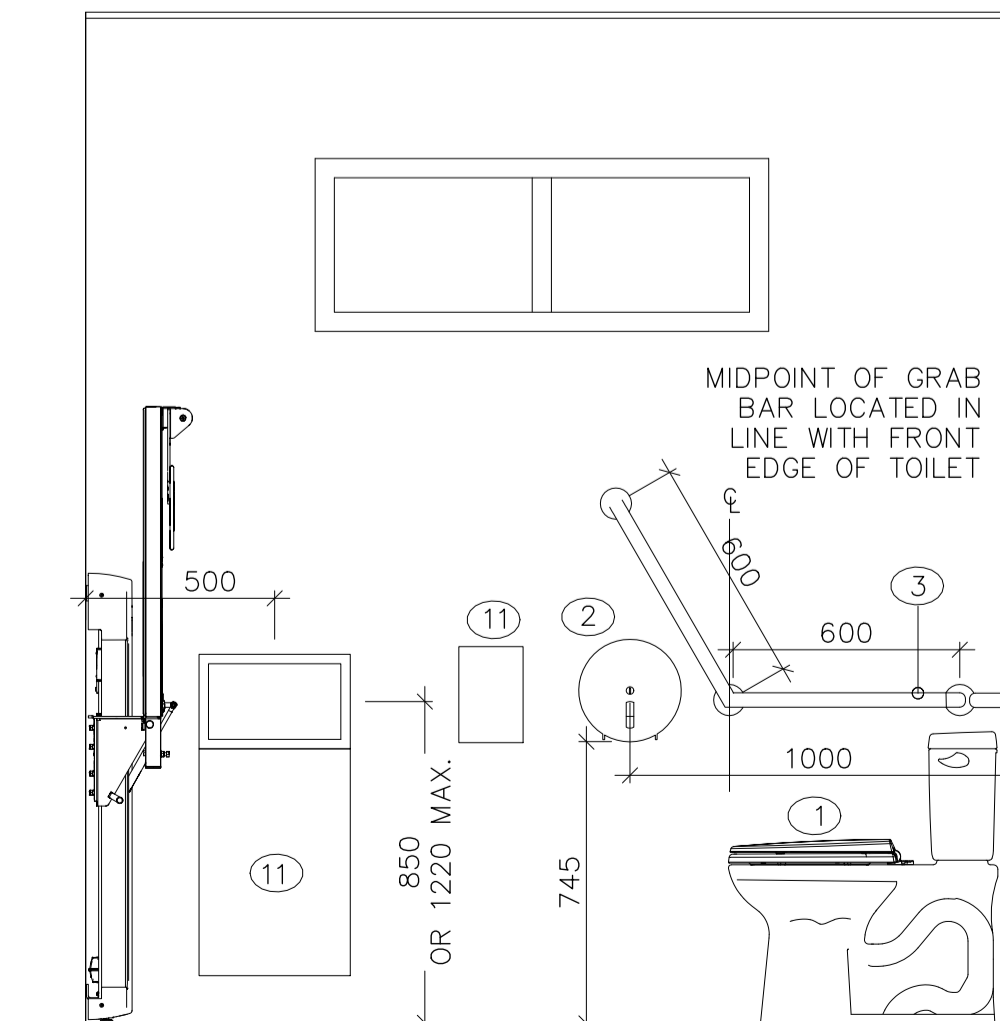
3 INTERIOR ELEVATION A
A111 120



3 INTERIOR ELEVATION B
A111 120



3 INTERIOR ELEVATION C
A111 120



3 INTERIOR ELEVATION D
A111 120

KEYNOTES:
KN1. STAINLESS STEEL SHEET BACKSPLASH. 16--GAUGE SHEET 1500MM (H) X 600MM + 121MM + 600MM (W). ONE CONTINUOUS SHEET BENT AROUND CORNERS TO COVER BOTH SIDES OF WALL.
KN2. STAINLESS STEEL SHEET BACKSPLASH. 16--GAUGE SHEET. 1200MM (H) X 610MM + 914MM + 610MM + 50MM (W). ONE CONTINUOUS SHEET BENT AROUND CORNERS TO COVER ALL THREE WALLS ABOVE MOP SINK AND OUTSIDE CORNER.
KN3. STAINLESS STEEL SHEET BACKSPLASH. 16--GAUGE SHEET 1500MM (H) X 1050MM + 50MM (W). ONE CONTINUOUS SHEET BENT AROUND CORNER, CUT AROUND COUNTERTOP/BACKSPLASH.
KN4. STAINLESS STEEL SHEET BACKSPLASH. 16--GAUGE SHEET 1500MM (H) X 600MM (W) (FOR BEHIND HAND DRYER IN ACCESSIBLE STALL)
NOTE: CONTRACTOR TO VERIFY WIDTH MEASUREMENTS AFTER WALLS ARE CONSTRUCTED PRIOR TO ORDERING STAINLESS STEEL SHEETS).

LEGEND

STUDIO C ARCHITECTURE

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5307 La Salle Crescent S.W. Calgary, Alberta T3E 5Y6

11	08/08/22	ISSUED FOR TENDER	CD/RF	CD
10	05/07/22	ISSUED FOR PCA REVIEW	CD/RF	CD
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7	02/02/22	ISSUED FOR REVIEW	CD/RF	CD
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4	10/11/21	ISSUED FOR REVIEW	SM/RF	RF
3	03/09/21	ISSUED FOR REVIEW	SM/RF	RF
2	03/08/21	ISSUED FOR REVIEW	SM/RF	RF
1	14/02/20	ISSUED FOR 65% REVIEW	CW/RF	RF
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

A detail number
numéro de détail

B source drawing no.
de dessin no.

C detail on drawing no.
détail sur dessin no.

Consultant's Name
Nom de l'expert-conseil

FINDLAYGROUP
OF COMPANIES

202 729 10 ST
CANMORE, AB
T1W 2A3

Eng. Stamp
Sceau de l'ingénieur

Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

Client Services Team
Southern Alberta
Operations Branch

Le Client Entretien l'Équipe
Alberta Méridional
Branche d'Opérations

Canada

Client/client
Parks Canada
Agency
L'Agence Parcs
Canada

Western and
Northern Region
Ouest et Nord
du Canada

Project title/Titre du projet

CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

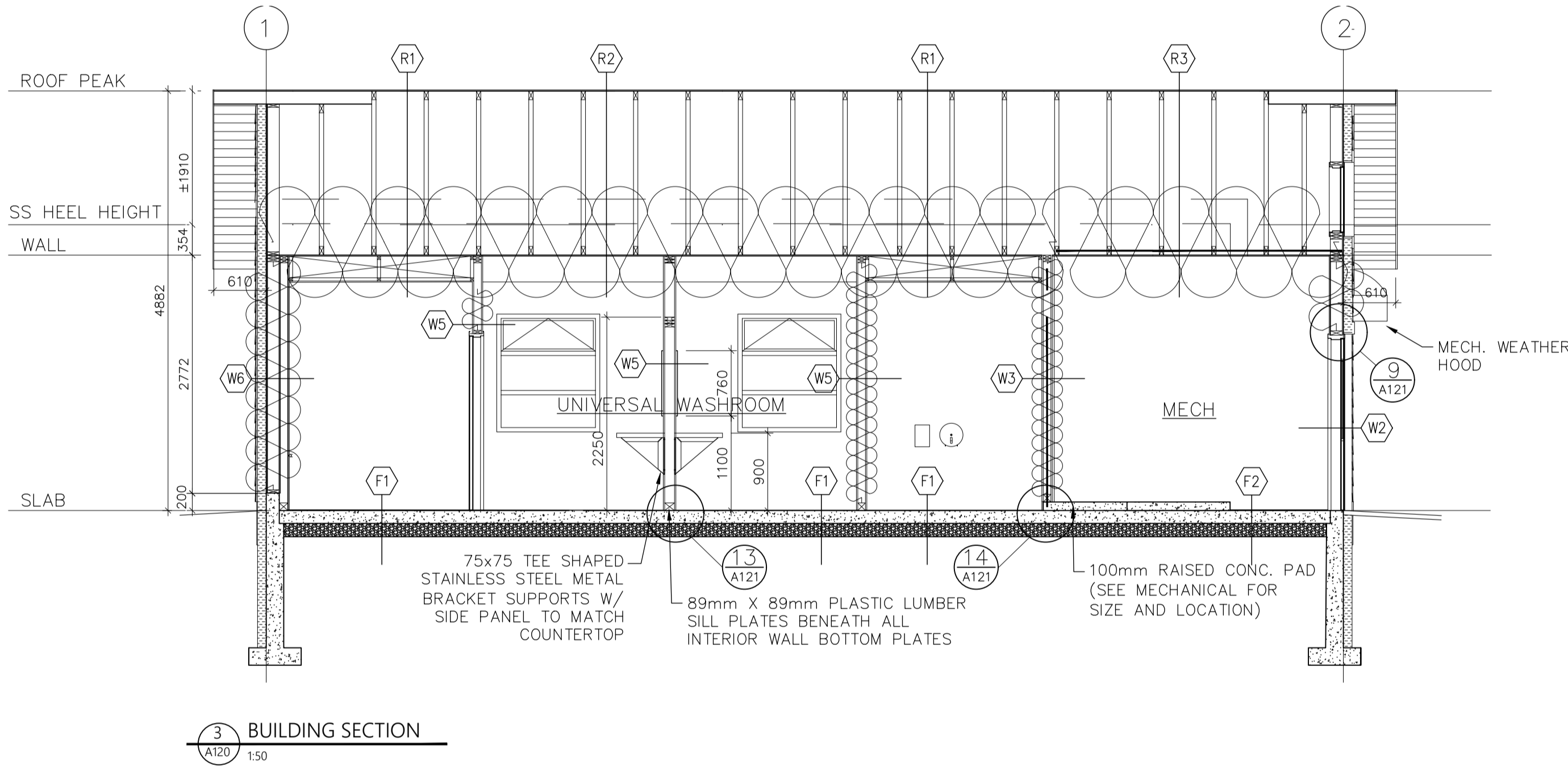
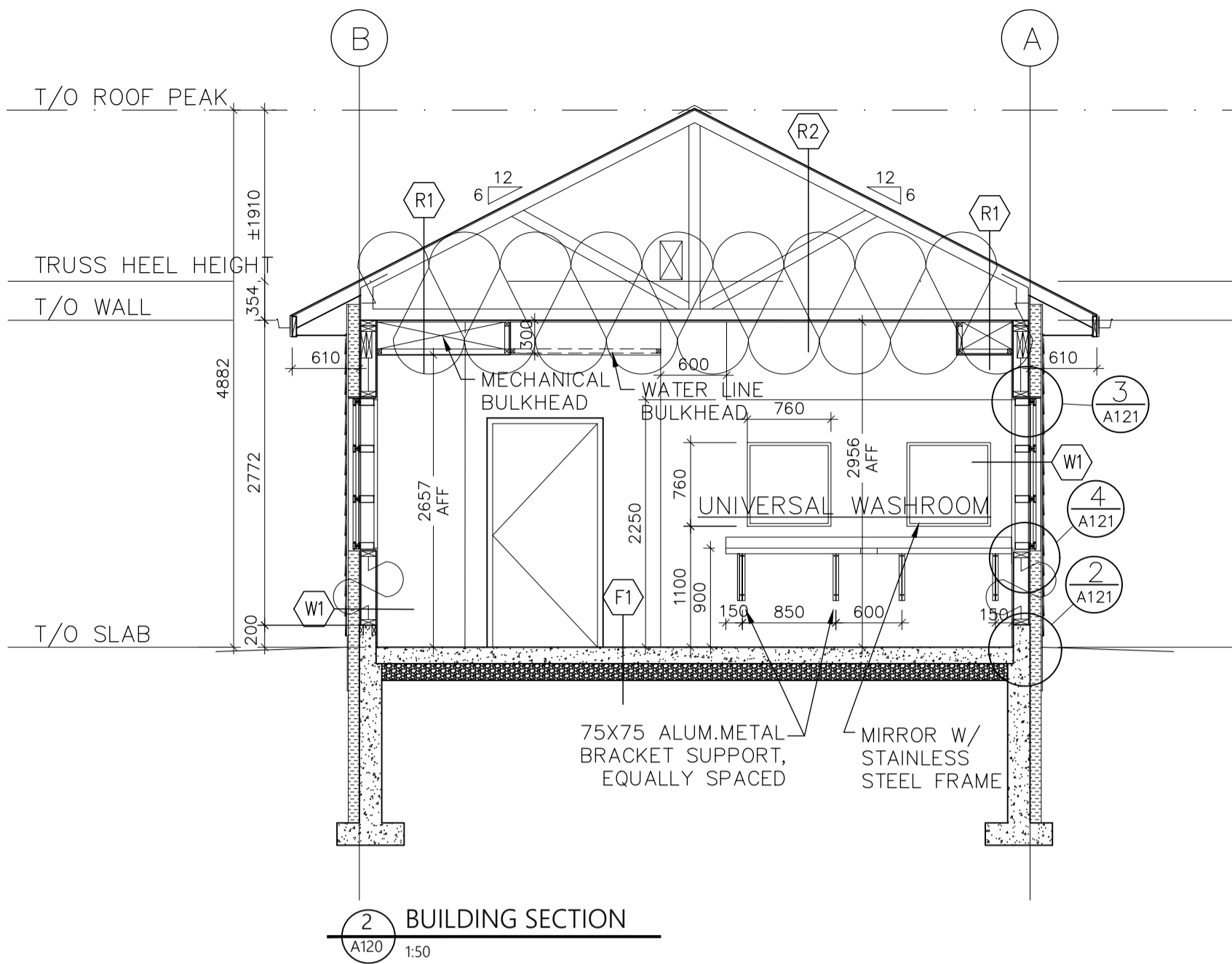
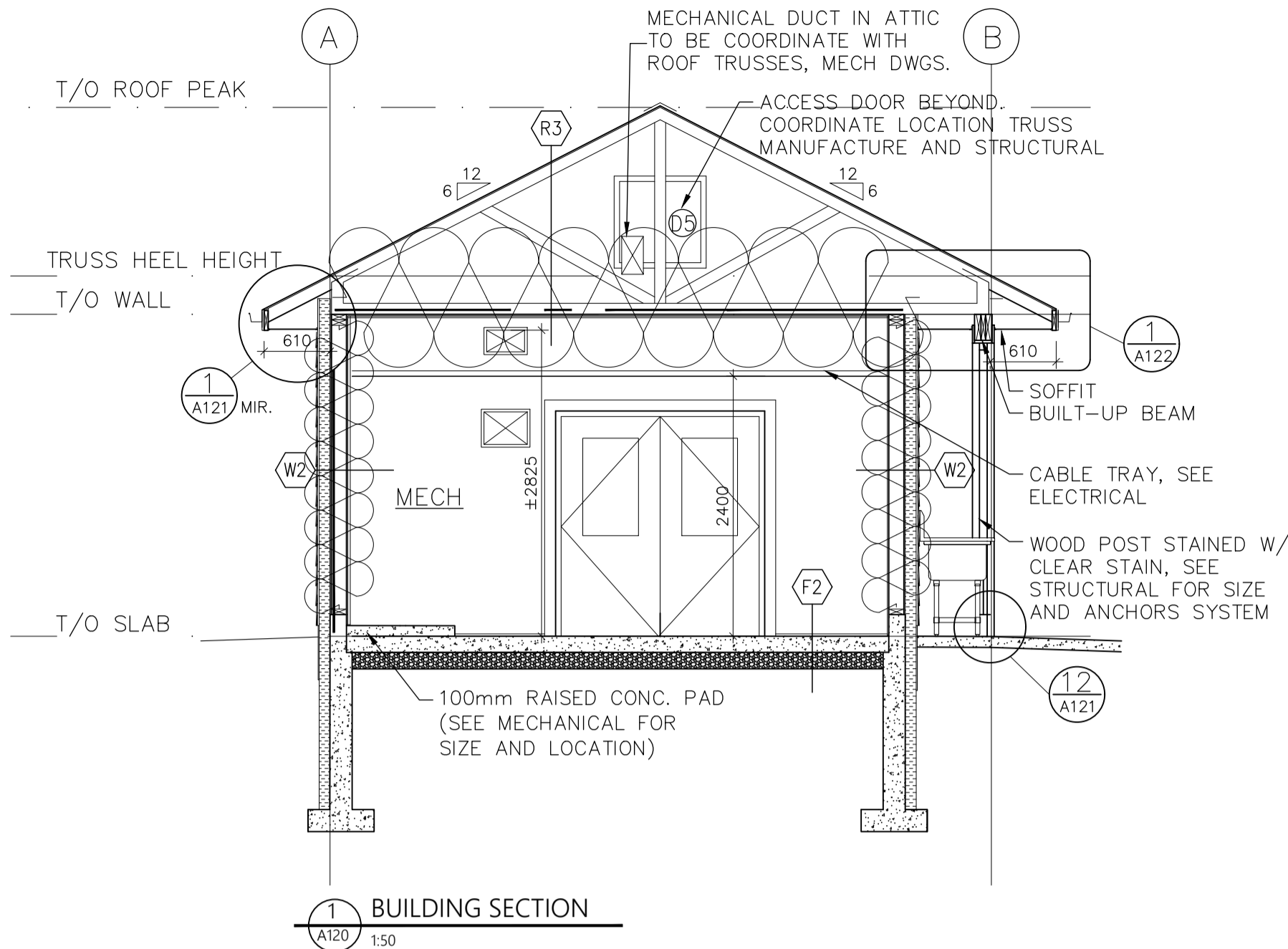
WASHROOM BUILDING
ROOF PLAN
FINISH PLAN

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par CW	Date/Date 04FEB2020
Designed by/Concept par FDG	Reviewed by/Revisé par RF	Scale/Échelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 19M-01812-00	Asset No./No. du-bien -	Sheet No./ No. de la feuille 12 33
Drawing Reference No./No. de référence du dessin		A111

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A1 841 x 594

C:\Users\CurtisA\OneDrive - studio C architecture inc\AutoCAD Projects\21-00101 Castle Mountain Washrooms\Castle Mountain Washrooms-IT-2022-08-08.dwg



- F1 FLOOR SLAB:**
CONCRETE FLOOR SLAB (SEE STRUCTURAL)
FLOOR FINISH IN ALL OTHER AREAS TO BE NON-SLIP
COMMERCIAL GRADE EPOXY COATING
- F2 FLOOR SLAB:**
CONCRETE FLOOR SLAB (SEE STRUCTURAL)
FLOOR FINISH IN MECH. AND JANITOR ROOM
TO BE POLISHED AND SEALED CONCRETE.

NOTE:
1. TRUSSES AS PER MANUFACTURE AND STRUCTURAL FRAMING PLANS
2. INSULATION/VENTILATION STOPS AS REQUIRED
3. ATTIC INSULATION TO BE RODENT PROOF
4. SHEET METAL ROOFING SAMPLE TO BE SUBMITTED TO PCA FOR REVIEW AND PRIOR TO ORDERING.
5. W3,W4, AND W5 WALLS TO HAVE PLASTIC LUMBER SILL PLATES IN CONTACT CONCRETE SURFACES IN ACCORDANCE WITH DETAILS
6. SEE A111 FOR SPECIFIED RFP PANELING COLOUR FOR ALL INTERIOR WALLS.
7. BATT INSULATION TO BE SELECTED TO BE MOISTURE AND MOLD RESISTANT.
8. CONTRACTOR TO COMPLETE SAMPLE OF EPOXY FLOORING FOR DEPARTMENTAL REPRESENTATIVE APPROVAL PRIOR TO PROCEEDING WITH INSTALLATION THROUGH ENTIRE WASHROOM.

WALLS

- W1 TYPICAL EXTERIOR WALL**
EXTERIOR FINISH (SEE ELEVATIONS)
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX.
KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX. WITH VERTICAL PANEL RAILS @ SIDING MANUFACTURE RECOMMENDED SPACING, KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm EPS RIGID INSULATION
SOPREMA WRAP OR SIDING MANUFACTURE'S EQUIVALENT
9.5mm PLYWOOD SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
(SEE ADDITION STRUCTURAL NOTES RE: STUD SPACING)
R-20 INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.
3.2mm FRP PANELING, FLOOR TO CEILING FOR PANEL
- W2 TYPICAL MECHANICAL ROOM EXTERIOR WALL**
EXTERIOR FINISH (SEE ELEVATIONS)
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX.
KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX. WITH VERTICAL PANEL RAILS @ SIDING MANUFACTURE RECOMMENDED SPACING, KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm EPS RIGID INSULATION
SOPREMA WRAP OR SIDING MANUFACTURE'S EQUIVALENT
9.5mm PLYWOOD SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
(SEE ADDITION STRUCTURAL NOTES RE: STUD SPACING)
R-20 INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED)
19mm PLYWOOD SHEATHING
3.2mm FRP PANELING, FLOOR TO CEILING FOR PANEL
- W3 TYPICAL MECHANICAL ROOM INTERIOR WALL**
3.2mm FRP PANELING, FLOOR TO CEILING (MECH. ROOM SIDE)
19mm PLYWOOD SHEATHING (MECH. ROOM SIDE)
1 LAYERS 15.9mm FIRE & WATER RESISTANT G.W.B. (MECH. ROOM SIDE)
6 MIL. POLY. VAPOUR BARRIER
38x89 WOOD STUDS @ 400mm O.C.
R-20 SOUND BATT INSULATION
15.9mm FIRE & MOLD RESISTANT G.W.B. (WASHROOM SIDE)
3.2mm FRP PANELING, FLOOR TO CEILING (WASHROOM SIDE)
- W4 TYPICAL INTERIOR WALL**
3.2mm FRP PANELING, FLOOR TO CEILING (WHRM. ROOM SIDE)
15.9mm FIRE AND MOLD RESISTANT G.W.B. (WHRM. ROOM SIDE)
38x89 WOOD STUDS @ 400mm O.C.
15.9mm FIRE AND MOLD RESISTANT G.W.B.
12.7mm PLYWOOD SHEATHING (JANITOR ROOM SIDE)
3.2mm FRP PANELING, FLOOR TO CEILING (JANIOR ROOM SIDE)
- W5 TYPICAL INTERIOR WALL**
3.2mm FRP PANELING, FLOOR TO CEILING
12.7mm MOLD RESISTANT G.W.B.
38x89 WOOD STUDS @ 400mm O.C.
R-20 SOUND BATT INSULATION
12.7mm MOLD RESISTANT G.W.B.
3.2mm FRP PANELING, FLOOR TO CEILING
- W6 EXTERIOR WALL**
EXTERIOR FINISH (SEE ELEVATIONS)
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX.
KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm HORIZONTAL Z FURRING GIRT @ 610mm O.C. MAX. WITH VERTICAL PANEL RAILS @ SIDING MANUFACTURE RECOMMENDED SPACING, KNIGHT WALL SYSTEMS, THERMAZEE OR EQUIVALENT
100mm EPS RIGID INSULATION
SOPREMA WRAP OR SIDING MANUFACTURE'S EQUIVALENT
9.5mm PLYWOOD SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
(SEE ADDITION STRUCTURAL NOTES RE: STUD SPACING)
R-20 INSULATION
6 MIL POLY. VAPOUR BARRIER
38x89 WOOD STUDS @ 400mm O.C.
12.7mm MOLD RESISTANT G.W.B.
3.2mm FRP PANELING, FLOOR TO CEILING FOR PANEL

ROOFS

- R1 OVER INTERIOR HEATED SPACES**
26 GA. CORRUGATED STEEL ROOF TO BE INSTALLED ON 19mm x 89mm WOOD STRAPPING @ MAXIMUM 600MM CENTERS, WESTFORM METALS, PROFILE:DURACLAD OR EQUIVALENT, COLOR MELCHERS GREEN (PARKS GREEN)
1 LAYER SOPREMA ROOF WRAP EQUIVALENT
MIN. 915mm WIDE ICE & WATER SHIELD EAVE PROTECTION
15.5mm EXTERIOR GRADE PLYWOOD SHEATHING W/ H-CLIPS TRUSSES AS PER MANUFACTURER / ENG
R-40 BATT (MIN) INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED,PRIMED AND PAINTED WERE EXPOSED, COLOUR WHITE)
BULKHEAD AND FALSE WASHROOM CEILINGS 38X89 WOOD STUBS @400 O.C
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED, PRIMED AND PAINTED, COLOUR WHITE)
- R2 OVER INTERIOR HEATED SPACES**
26 GA. CORRUGATED STEEL ROOF TO BE INSTALLED ON 19mm x 89mm WOOD STRAPPING @ MAXIMUM 600MM CENTERS, WESTFORM METALS, PROFILE:DURACLAD OR EQUIVALENT, COLOR MELCHERS GREEN (PARKS GREEN)
1 LAYER SOPREMA ROOF WRAP EQUIVALENT
MIN. 915mm WIDE ICE & WATER SHIELD EAVE PROTECTION
15.5mm EXTERIOR GRADE PLYWOOD SHEATHING W/ H-CLIPS TRUSSES AS PER MANUFACTURER / ENG
R-40 BATT (MIN) INSULATION
6 MIL POLY. VAPOUR BARRIER
12.7mm MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED, PRIMED AND PAINTED WERE EXPOSED, COLOUR WHITE)
- R3 OVER INTERIOR MECHANICAL & JANITOR ROOMS**
26 GA. CORRUGATED STEEL ROOF TO BE INSTALLED ON 19mm x 89mm WOOD STRAPPING @ MAXIMUM 600MM CENTERS, WESTFORM METALS, PROFILE:DURACLAD OR EQUIVALENT, COLOR MELCHERS GREEN (PARKS GREEN)
1 LAYER SOPREMA ROOF WRAP EQUIVALENT
MIN. 915mm WIDE ICE & WATER SHIELD EAVE PROTECTION
15.5mm EXTERIOR GRADE PLYWOOD SHEATHING W/ H-CLIPS TRUSSES AS PER MANUFACTURER / ENG
R-40 BATT (MIN) INSULATION
6 MIL POLY. VAPOUR BARRIER
2-LAYERS OF 15.9 mm FIRE & MOLD RESISTANT G.W.B.(FIRE TAPED, SANDED,PRIMED AND PAINTED WERE EXPOSED, COLOUR WHITE)

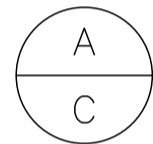
LEGEND

STUDIO C ARCHITECTURE
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5307 La Salle Crescent S.W. Calgary, Alberta T3E 5Y6

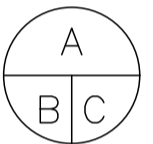


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10	05/07/22	ISSUED FOR PCA REVIEW	CD/RF	CD
9	02/06/22	ISSUED FOR PCA REVIEW	CD/RF	CD
8	09/02/22	ISSUED FOR FINAL REVIEW	CD/RF	CD
7	02/02/22	ISSUED FOR REVIEW	CD/RF	CD
6	22/12/21	ISSUED FOR REVIEW	CD/RF	CD
5	15/11/21	ISSUED FOR REVIEW	SM/RF	RF
4	10/11/21	ISSUED FOR REVIEW	SM/RF	RF
3	03/09/21	ISSUED FOR REVIEW	SM/RF	RF
2	03/08/21	ISSUED FOR REVIEW	SM/RF	RF
1	14/02/20	ISSUED FOR 65% REVIEW	CW/RF	RF
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision



A detail number
numéro de detail
B source drawing no.
de dessin no.
C detail on drawing no.
detail sur dessin no.



Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
FINDLAYGROUP OF COMPANIES 202 729 10 ST CANMORE, AB T1W 2A3	

Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

Client/client Parks Canada Agency	L'Agence Parcs Canada
Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

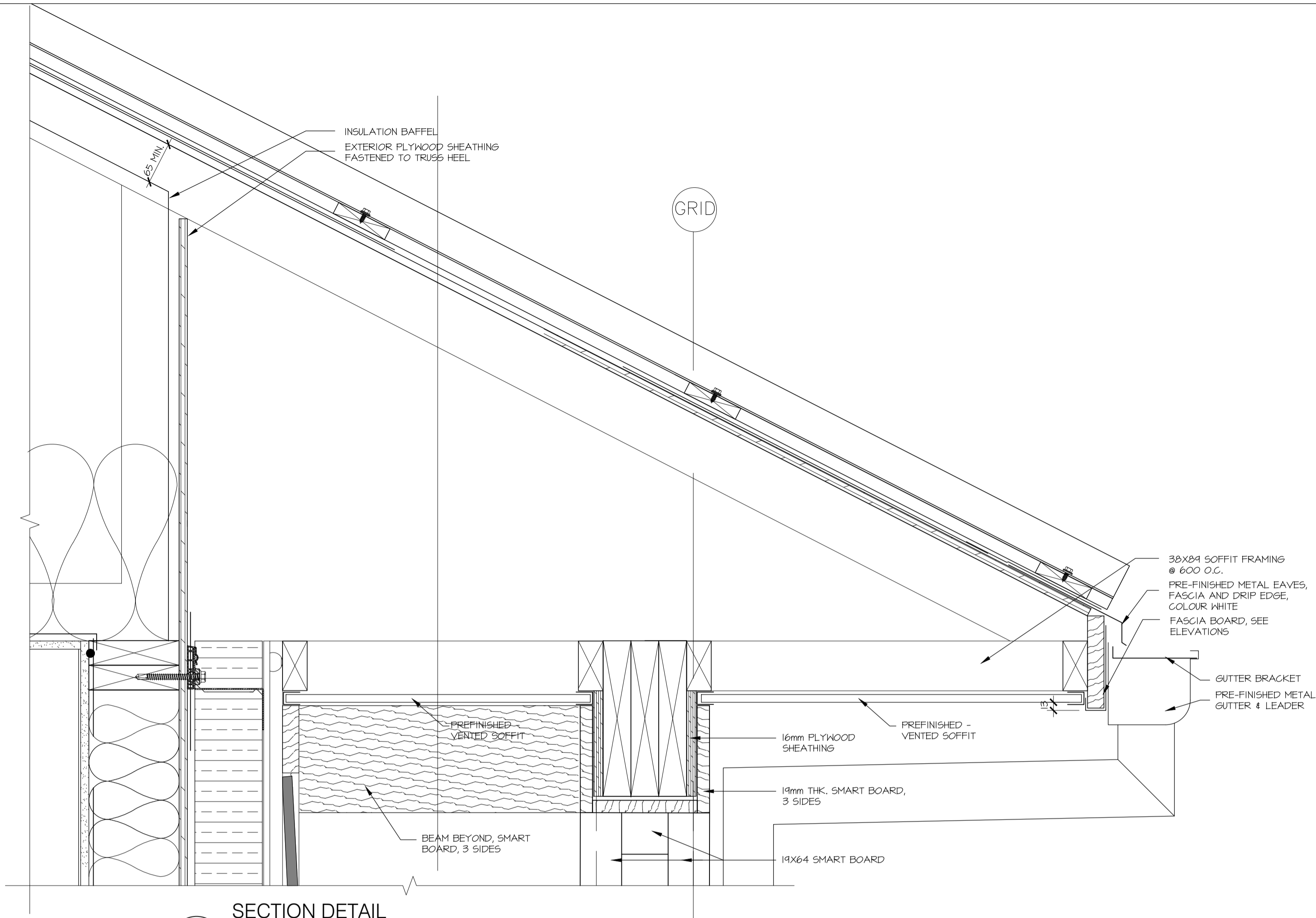
Drawing title/Titre du dessin

BUILDING SECTIONS

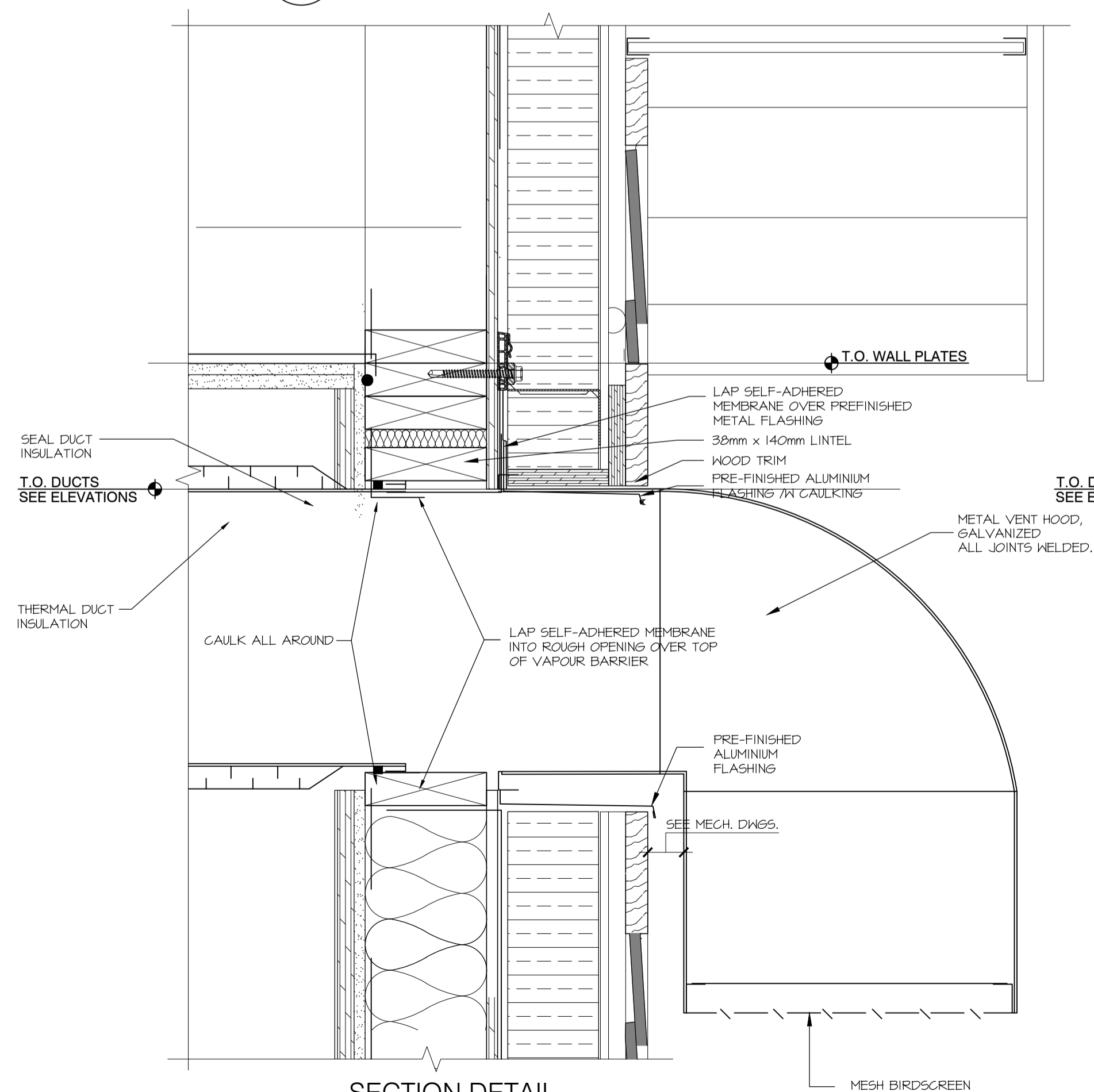
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Designed by/Concept par FDG	Reviewed by/Revisé par RF	Scale/Échelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 19M-01812-00	Asset No./No. du-bien -	Sheet No./ No. de la feuille 13
Drawing Reference No./No. de référence du dessin A120		33

A1 841 x 594

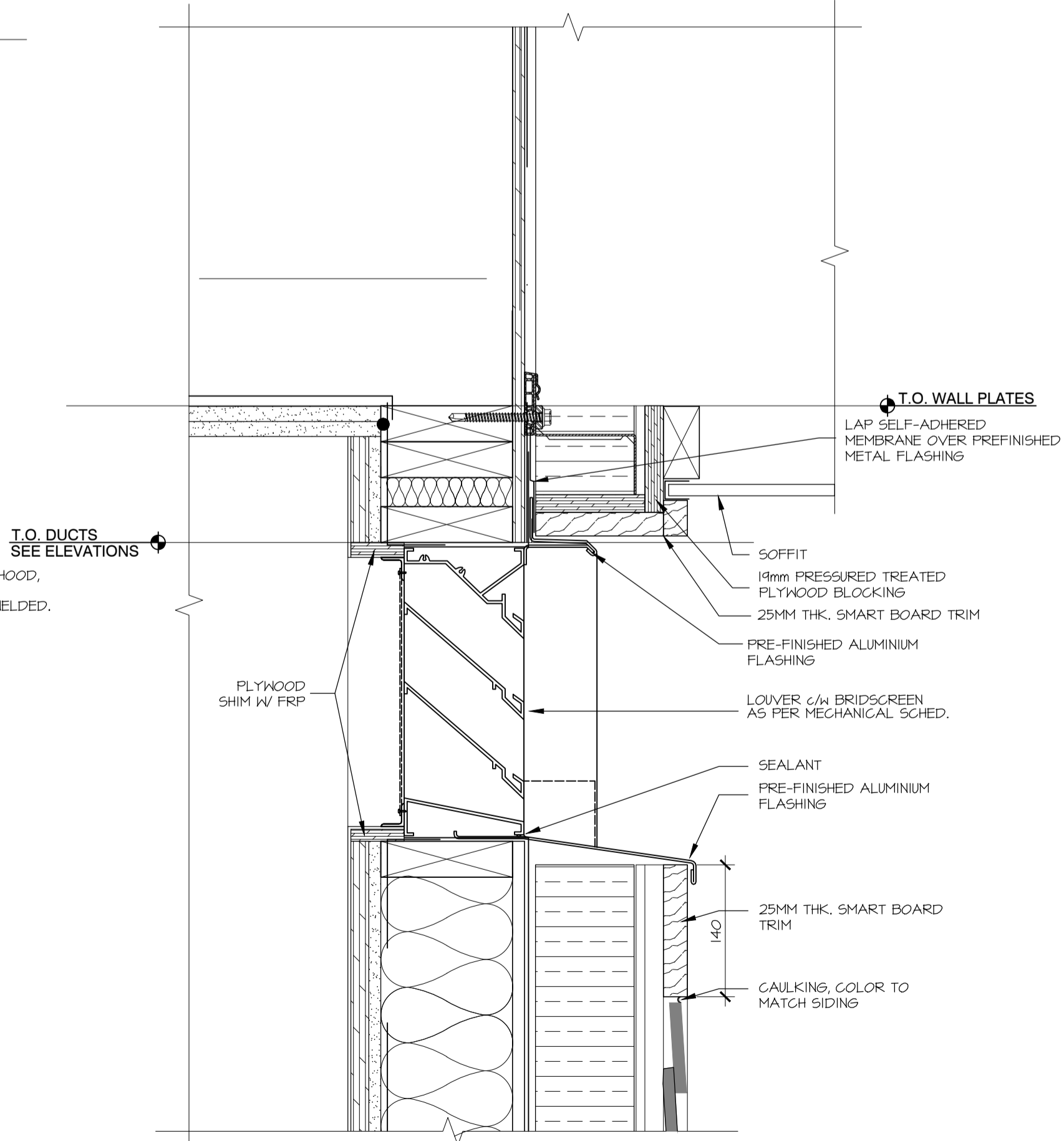
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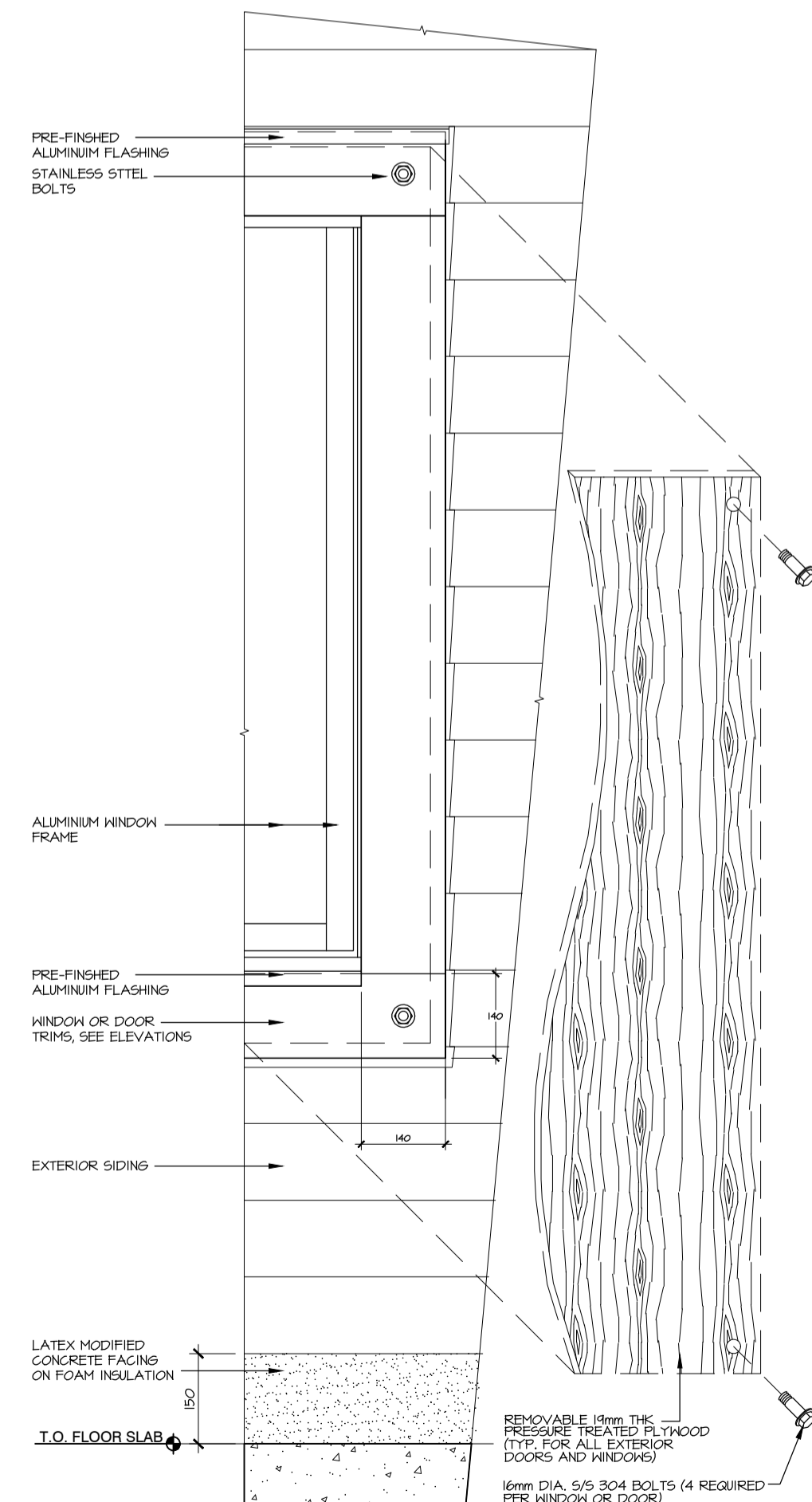
1
A122 SECTION DETAIL
ROOF OVERHANG @ OUTDOOR SINK
SCALE:1:5



2
A122 SECTION DETAIL
EXT. WALL @ MECH. WALL HOOD
SCALE:1:5



3
A122 SECTION DETAIL
EXT. WALL @ LOUVRE
SCALE:1:5



4
A122 ELEVATION DETAIL
WINDOW & DOOR COVER BOARD
SCALE:1:10

LEGEND

STUDIOARCHITECTURE

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CURTIS A. DRUL

REGISTERED

ARCHITECT

ALBERTA

11	08/08/22	ISSUED FOR TENDER	CD/RF	CD
10	05/07/22	ISSUED FOR PCA REVIEW	CD/RF	CD
9	02/06/22	ISSUED FOR PCA REVIEW	CD/RF	CD
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5	15/11/21	ISSUED FOR REVIEW	SM/RF	RF
4	10/11/21	ISSUED FOR REVIEW	SM/RF	RF
3	03/09/21	ISSUED FOR REVIEW	SM/RF	RF
2	03/08/21	ISSUED FOR REVIEW	SM/RF	RF
1	14/02/20	ISSUED FOR 65% REVIEW	CW/RF	RF
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				
<div><div>A detail number numéro de detail</div><div>B source drawing no. de dessin no.</div><div>C detail on drawing no. detail sur dessin no.</div></div> <div><div>A</div><div>C</div></div> <div><div>A</div><div>B</div><div>C</div></div>				
Consultant's Name Nom de l'expert-conseil			Eng. Stamp Sceau de l'ingénieur	
<div><div>FINDLAYGROUP</div><div>OF COMPANIES</div><div>202 729 10 ST CANMORE, AB T1W 2A3</div></div>				
<div><div></div><div>Public Works and Government Services Canada</div></div>			<div><div></div><div>Travaux publics et Services gouvernementaux Canada</div></div>	
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<div>Canada</div>				
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Project title/Titre du projet				
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)				
BANFF NATIONAL PARK, ALBERTA				
Drawing title/Titre du dessin				
DETAILS				
Surveyed by/Arpenté par PARKS CANADA		Drawn by/Dessiné par CW		Date/Date 04FEB2020
Designed by/Concept par FDG		Reviewed by/Revisé par RF		Scale/Échelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN				
Client Acceptance/Acceptation du client		Approved by/Approuvé par		
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC		
Project No./No. du projet 19M-01812-00		Asset No./No. du-bien -		Sheet No./ No. de la feuille 15 33
Drawing Reference No./No. de référence du dessin A122				

GENERAL

1.

THIS IS A METRIC PROJECT. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN MILLIMETERS AND ALL FORCES ARE IN METRIC UNITS (PER TG-ABBR-02).
2.

"WSP-S" REFERS TO WSP CANADA STRUCTURAL CONSULTANT.
3.

PRIOR TO CONSTRUCTION, REVIEW STRUCTURAL DRAWINGS IN CONJUNCTION WITH DRAWINGS PROVIDED BY ALL OTHER CONSULTANTS. CONFIRM ALL DIMENSIONS, ELEVATIONS AND HEADROOM CLEARANCES, AND COORDINATE ALL OPENINGS, SLEEVES AND EMBEDDED ITEMS.
4.

REPORT ANY DISCREPANCIES OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
5.

DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION FROM WSP-S.
6.

VERIFY EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO CONSTRUCTION.
7.

USE THESE DRAWINGS ONLY FOR THE PURPOSE IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION".
8.

DO NOT USE INFORMATION ON THESE DRAWINGS FOR ANY OTHER PROJECT OR WORKS.
9.

DO NOT SCALE THESE DRAWINGS.
10.

UNLESS OTHERWISE NOTED ON DRAWINGS, FOLLOW TYPICAL DETAILS SHOWN ON S110 AND S111. TYPICAL DETAILS SHOW STRUCTURAL INTENT RATHER THAN ACTUAL CONDITIONS FOR THIS PROJECT. IF A TYPICAL DETAIL INCLUDES A CROSS REFERENCE TO ANOTHER TYPICAL DETAIL WHICH IS NOT INCLUDED IN THE DRAWING SET, THE CROSS REFERENCED DETAIL IS NOT APPLICABLE ON THIS PROJECT.
11.

ALL SECTIONS, DETAILS AND STATEMENTS NOTED AS "TYPICAL" APPLY TO LIKE / SIMILAR CONDITIONS IN THE STRUCTURE.
12.

REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED FIRE RATING, SPRAYED FIREPROOFING, INTUMESCENT PAINTING AND ALL OTHER MEASURES REQUIRED TO ACHIEVE IT.
13.

REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR WATERPROOFING, SEALERS, ETC.
14.

DRAWINGS SHOW COMPLETED STRUCTURE ONLY. THEY DO NOT SHOW TEMPORARY WORKS FOR WHICH THE CONTRACTOR IS RESPONSIBLE AND WHICH MAY BE REQUIRED FOR EXECUTION OF THE PROJECT, INCLUDING TEMPORARY SHORING, BRACING, GUYS AND TIE DOWNS. THE CONTRACTOR TO ESTABLISH CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE WHOLE STRUCTURE AND ALL ITS COMPONENTS DURING ERECTION.
15.

EXTENT OF ALL TEMPORARY SHORING FOR EXCAVATION WHICH MAY BE REQUIRED IS NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS, CONTRACTOR TO DETERMINE. REFER TO SPECIFICATIONS FOR TEMPORARY SHORING REQUIREMENTS.
16.

DESIGN AND CONSTRUCTION REVIEW OF ALL TEMPORARY WORKS TO BE CARRIED OUT BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED.
17.

ANCHOR BOLTS AND OTHER EMBEDDED ITEMS ARE DESIGNED FOR LOADS ACTING ON THE COMPLETED STRUCTURE ONLY AND ARE NOT TO BE USED OR RELIED UPON FOR TEMPORARY SUPPORT OR BRACING DURING ERECTION UNLESS REVIEWED AND APPROVED BY THE CONTRACTOR'S ENGINEER RESPONSIBLE FOR THE ERECTION PROCEDURES.
18.

CONSTRUCTION LOADS ON COMPLETED STRUCTURE NOT TO EXCEED DESIGN LOADS INDICATED ON DRAWINGS. FULL DESIGN LOADS MAY ONLY BE APPLIED AFTER THE CONCRETE REACHES ITS DESIGN STRENGTH.
19.

UNLESS SHOWN ON STRUCTURAL DRAWINGS, DESIGN OF NON STRUCTURAL AND SECONDARY STRUCTURAL ELEMENTS AND THEIR CONNECTIONS TO THE PRIMARY BUILDING STRUCTURE ARE NOT WITHIN THE SCOPE OF SERVICES PROVIDED BY WSP-S. SUCH ELEMENTS INCLUDE (BUT ARE NOT LIMITED TO) THE FOLLOWING:

1.

MISCELLANEOUS STEEL ELEMENTS: STAIRS, RAILINGS, GUARDRAILS.
2.

PARTITIONS: MASONRY, GLASS, WOOD AND STEEL STUDS, PREFABRICATED PANELS
3.

BULKHEADS, SUSPENDED CEILINGS, INTERIOR AND EXTERIOR SIGNAGE.
4.

EXTERIOR CLADDING: PRECAST PANELS, METAL WALL SYSTEMS, CURTAIN WALLS AND WINDOWS.
5.

SKYLIGHTS, SNOW FENCES, GUTTERS, ROOF ANCHORS, WINDOW WASHING SYSTEMS, CHIMNEYS AND STACKS.
6.

SUPPORTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT: HANGERS, BRACES, POSTS, RACKS, SLEEPERS, SEISMIC RESTRAINTS, SUPPORT PLATFORMS AND PADS, SERVICE PLATFORMS.
7.

LANDSCAPING ELEMENTS: WALLS, CURBS, BENCHES, PLANTERS, WATER FEATURES.
8.

LIGHT POLES, FLAG POLES, SIGNS AND THEIR FOUNDATIONS.

WSP-S WILL NOT REVIEW DESIGN, DETAILING AND INSTALLATION OF THESE ELEMENTS, FOR WHICH SUPPLIERS AND / OR SPECIALTY PROFESSIONAL ENGINEERS ARE RESPONSIBLE. THE ONLY REVIEW PROVIDED (WHERE APPLICABLE) WILL BE FOR IMPACT ON THE BASE BUILDING STRUCTURE.

20.

MAINTAIN A QUALITY CONTROL PLAN FOR STRUCTURAL WORK, AND MAKE IT AVAILABLE TO THE CONSULTANT UPON REQUEST. AT A MINIMUM, THE PLAN TO INCLUDE:

1.

NAMES OF PERSONNEL RESPONSIBLE FOR EXECUTION OF THE PLAN.
2.

MEANS AND METHODS FOR CONFIRMING MATERIAL COMPLIANCE WITH SPECIFICATIONS AND ASSOCIATED DOCUMENTATION PROCEDURES.
3.

PROGRAM FOR CONFIRMING AND DOCUMENTING COMPLIANCE WITH REQUIRED SUB-TRADE QUALIFICATIONS AND QUALIFICATIONS OF THEIR INDIVIDUAL EMPLOYEES AND SUB-CONTRACTORS.
4.

PROCEDURES FOR REVIEWING FIELD COMPLIANCE WITH CONSTRUCTION DOCUMENTS, INCLUDING DOCUMENTATION OF LOCATIONS REVIEWED, PHOTOGRAPHS TAKEN AND TIMING OF REVIEW. THE CONTRACTOR'S REVIEW TO BE COMPLETED PRIOR TO REVIEW BY THE CONSULTANT.
5.

PROCEDURES FOR RECTIFYING DEFICIENCIES NOTED BY THE CONTRACTOR, SUB-CONTRACTORS, CONSULTANTS AND INDEPENDENT INSPECTION AGENCIES.
21.

FOR INSPECTION AND TESTING REQUIREMENTS, REFER TO SPECIFICATIONS.
22.

IN CASE OF DISCREPANCY BETWEEN GENERAL NOTES, DRAWINGS AND SPECIFICATIONS, COMPLY WITH THE MOST STRINGENT REQUIREMENTS.

DESIGN DATA

1.

STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2019 NATIONAL BUILDING CODE (NBCC), SUPPLEMENTED BY THE USER'S GUIDE - NBC 2015 STRUCTURAL COMMENTARIES.
2.

CONCRETE ELEMENTS ARE DESIGNED PER CSA A 23.3-14 - DESIGN OF CONCRETE STRUCTURES.
3.

SAWN LUMBER AND GLUE LAMINATED LUMBER STRUCTURAL ELEMENTS ARE DESIGNED PER CSA 086-14 - ENGINEERING DESIGN IN WOOD.
4.

THE VALUES FOR CLIMATIC DATA USED IN THE DETERMINATION OF DESIGN LOADS HAVE BEEN OBTAINED FROM THE 2019 NBCC FOR THE SPECIFIC LOCATION OF LAKE LOUISE, ALBERTA.
5.

BASED ON THE USE AND OCCUPANCY, THE BUILDING IS DESIGNED TO THE REQUIREMENTS OF A NORMAL IMPORTANCE CATEGORY.
6.

SELF WEIGHT (SWT) IS DUE TO THE WEIGHT OF THE STRUCTURE ITSELF. IT VARIES WITH THE STRUCTURAL SYSTEM, AND INCLUDES CONCRETE TOPPINGS ON STEEL DECK.
7.

SUPERIMPOSED DEAD LOADS (SDL) ARE NON-STRUCTURAL DEAD LOADS DUE TO NON-STRUCTURAL TOPPINGS, FINISHES, PARTITIONS, ROOFING MATERIALS, SUSPENDED EQUIPMENT, PAVERS, SOIL, ETC.
8.

DEAD LOAD (DL) IS THE SELF WEIGHT OF THE STRUCTURE PLUS THE SUPERIMPOSED DEAD LOAD.

9.

UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN ON DRAWINGS ARE SPECIFIED (UNFACTORED) LOADS, TO BE USED FOR ULS DESIGN. FOR SLS DESIGN, THESE LOADS CAN BE REDUCED BY MULTIPLYING WITH THE RATIO OF APPROPRIATE IMPORTANCE FACTORS $\gamma(SLS) / \gamma(ULS)$ GIVEN BELOW.
10.

IF ONLY ONE VALUE IS GIVEN FOR A LOAD, CONSIDER IT LIVE LOAD.
11.

FOR CONNECTION LOADS, "+" SIGN INDICATES TENSION AND "-" SIGN INDICATES COMPRESSION, EXCEPT FOR COLUMN LOADS WHERE "+" SIGN INDICATES COMPRESSION AND "-" SIGN INDICATES TENSION.
12.

SNOW:
 $S_s = 5.5 \text{ kPa}$ $S_r = 0.1 \text{ kPa}$ $I_s \text{ (ULS)} = 1.0$ $I_s \text{ (SLS)} = 0.9$
MINIMUM UNFACTORED SNOW LOAD = $4.5 \text{ kPa} \times I_s$
13.

RAIN:
24 HOUR RAINFALL = 55 mm
14.

LATERAL LOADS IN THIS STRUCTURE ARE RESISTED BY SHEAR WALLS, AND ARE DETERMINED BASED ON THE WIND AND SEISMIC DATA BELOW.
15.

WIND:
 $q_{50} = 0.33 \text{ kPa}$ $I_w \text{ (ULS)} = 1.0$ $I_w \text{ (SLS)} = 0.75$
BUILDING IS: LOW RISE
TERRAIN TYPE: OPEN
INTERNAL PRESSURE CATEGORY: 2
 $C_e = 0.9$
WIND LOAD AT GRADE LEVEL FOR DESIGN OF OVERALL BUILDING LATERAL LOAD RESISTING SYSTEM: 0.7 kPa .
WIND LOAD AT GRADE LEVEL OUTSIDE THE END ZONES FOR DESIGN OF SECONDARY STRUCTURAL ELEMENTS (GIRTS, WIND COLUMNS, ETC. BUT NOT INCLUDING CLADDING): 0.79 kPa .
16.

SEISMIC:
 $S_a(0.2) = 0.25$ $P_G A = 0.13$ $I_e F_a S_a(0.2) = 0.25$
 $S_a(0.5) = 0.14$ $R_d = 3.0$
 $S_a(1.0) = 0.07$ $R_o = 1.7$ SITE CLASSIFICATION = C
 $S_a(2.0) = 0.04$ $I_e = 1.0$
SEISMIC FORCE RESISTING SYSTEM (SFRS): NAILED SHEAR WALLS (WOOD-BASED PANEL)

SHOP DRAWINGS

1.

REFER TO SPECIFICATIONS FOR SHOP DRAWINGS WHICH NEED TO BE SUBMITTED FOR REVIEW.
2.

REVIEW OF SHOP DRAWINGS BY WSP-S IS ON A SAMPLING BASIS, FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS. IT IS NOT A DETAILED CHECK AND MUST NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO MAKE THE WORK ACCURATE AND IN CONFORMITY WITH ALL THE CONTRACT DOCUMENTS. TO REVIEW SHOP DRAWINGS AND TO COORDINATE WORK OF INTERFACING TRADES AND MANUFACTURE OF INTERFACING PRODUCTS.
3.

REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS.
4.

IF REQUIRED, ELECTRONIC FILES OF THE FULL SET OF STRUCTURAL DRAWINGS ARE AVAILABLE "AS-IS", AT A COST OF \$100.00 PER SHEET, FOR USE AS BACKGROUND IN SHOP DRAWING PREPARATION, PROVIDED THAT THE OWNER AND THE OWNER'S CONSULTANTS ARE NOT HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS ON THE DRAWINGS. THESE DRAWINGS ARE NOT TO BE SCALED.
5.

ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS IN WSP-S OFFICE. ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED. SUBMIT IN GENERAL CONFORMITY WITH THE SEQUENCE OF CONSTRUCTION INTENDED.
6.

AFTER REVIEW, THE DRAWINGS WILL BE STAMPED AND RETURNED. DO NOT COMMENCE FABRICATION UNTIL RETURNED SHOP DRAWINGS HAVE BEEN EXAMINED.
7.

SHOP DRAWINGS MARKED "REVIEWED" CAN BE USED FOR FABRICATION. DO NOT MAKE ANY CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE CONSULTANT.
8.

SHOP DRAWINGS MARKED "REVIEWED AS NOTED" CAN BE USED FOR FABRICATION AFTER THE REVISIONS NOTED ARE IMPLEMENTED. DO NOT MAKE ANY FURTHER CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE CONSULTANT.
9.

SHOP DRAWINGS MARKED "REVISE AND RESUBMIT" REQUIRE SUBSTANTIAL REVISIONS AND MUST BE RESUBMITTED FOR ADDITIONAL REVIEW PRIOR TO FABRICATION. ALL CHANGES AND ADDITIONS TO THE PREVIOUS SUBMISSION TO BE CLEARLY IDENTIFIED ON THE RESUBMITTED DRAWINGS. ONLY THE IDENTIFIED CHANGES WILL BE REVIEWED ON RE-SUBMISSION.
10.

SHOP DRAWINGS MARKED "REVIEWED FOR IMPACT ON BASE STRUCTURE ONLY" SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES BUT AFFECT BEHAVIOUR OF THE BASE STRUCTURE. WSP-S WILL NOT REVIEW DESIGN OF THESE WORKS AND ASSUMES THAT THE INDICATED WEIGHTS AND ALL OTHER LOADS IMPOSED ON THE BASE STRUCTURE ARE CORRECTLY IDENTIFIED BY THE DESIGNER / SUPPLIER OF THESE ELEMENTS.
11.

DRAWINGS MARKED "NOT REVIEWED" SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES AND DO NOT IMPACT THE BASE BUILDING STRUCTURE.
12.

WSP-S WILL NOT REVIEW DESIGN AND IMPLEMENTATION OF ANY TEMPORARY WORKS, NOR ASSESS IMPACT OF THESE WORKS ON THE BASE STRUCTURE. THE CONTRACTOR AND / OR THE PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR MUST ENSURE THAT THE BASE STRUCTURE IS NOT ADVERSELY AFFECTED BY THE TEMPORARY WORKS AND CONSTRUCTION PROCESS AND THAT TEMPORARY LOADS DO NOT EXCEED THE DESIGN LOADS INDICATED ON STRUCTURAL DRAWINGS.
13.

DO NOT USE SHOP DRAWINGS AS A MEANS TO PROPOSE SUBSTITUTIONS OR ALTERNATIVES TO THE MATERIALS, PRODUCTS OR DETAILS INDICATED IN CONTRACT DOCUMENTS. SUCH SHOP DRAWINGS WILL BE MARKED "REVISE AND RESUBMIT".
14.

PROVIDE FINAL RECORD DRAWINGS AFTER ALL CORRECTIONS ARE MADE.

FIELD REVIEW

1.

WSP-S WILL PROVIDE PERIODIC FIELD REVIEW OF A REPRESENTATIVE SAMPLE OF THE STRUCTURAL WORKS DETAILED ON THESE DRAWINGS FOR GENERAL CONFORMANCE WITH CONTRACT DOCUMENTS. THESE REVIEWS DO NOT REPLACE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND MAINTAIN A QUALITY CONTROL PROGRAM, AND DO NOT MAKE WSP-S A GUARANTOR OF THE CONTRACTOR'S WORK.
2.

CONSTRUCTION REVIEW REPORTS WILL OUTLINE ANY DEFICIENCIES FOUND.
3.

ASSIST WSP-S DURING FIELD REVIEW, AND PROVIDE SAFE ACCESS TO WORK AREAS AS REQUIRED.
4.

CHECK THE WORK PRIOR TO FIELD REVIEW TO CONFIRM IT IS COMPLETED AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
5.

BRING TO THE ATTENTION OF WSP-S ANY DEFICIENCIES FOUND IN THE WORK TOGETHER WITH A PROPOSAL FOR REMEDY. WSP-S WILL DECIDE WHAT CORRECTIVE ACTION MAY BE TAKEN AND ISSUE THE NECESSARY INSTRUCTIONS.
6.

PROVIDE REASONABLE NOTICE (NOT LESS THAN 24 HOURS) TO ALLOW FOR THE FIELD REVIEW OF THE FOLLOWING:

1.

CONCRETE WALLS AND BEAMS

BEFORE CLOSING FORMS

2.

ALL OTHER CONCRETE

BEFORE EACH CONCRETE POUR

3.

WOOD FRAMING

BEFORE COVERING UP
7.

SCHEDULE REVIEW WORK TO OCCUR DURING NORMAL BUSINESS HOURS.

8.

ORGANIZE FOR FIELD REVIEW OF ALL PROPRIETARY PRODUCTS AND OTHER STRUCTURAL WORKS DESIGNED BY SPECIALTY ENGINEERS. THE REVIEW TO BE BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN OR BY OTHER ENGINEERS DESIGNATED BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN AND LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED. SUBMIT CONSTRUCTION REVIEW REPORTS FOR CONSULTANT'S RECORD.

EXCAVATION, BACKFILL AND COMPACTION

1.

REFER TO GEOTECHNICAL REPORT NUMBER 181-13597-12, PREPARED BY WSP ON JANUARY 21, 2019 FOR ALL EXCAVATION, BACKFILL AND COMPACTION REQUIREMENTS.
2.

VERIFY GEOTECHNICAL INFORMATION ON SITE AND OBTAIN ADDITIONAL DATA IF REQUIRED.
3.

PRIOR TO COMMENCING EXCAVATION, LOCATE AND IDENTIFY ALL EXISTING UNDERGROUND STRUCTURES AND SERVICES.
4.

MAINTAIN STRUCTURES AND SERVICES WHICH ARE TO REMAIN OPERATIONAL OR WHICH WILL BE RE-USED, DESIGN AND PROVIDE PROTECTION AND SUPPORT, WHERE REQUIRED, OBTAIN APPROVAL FROM THE AUTHORITIES HAVING JURISDICTION AND DIVERT OR RELOCATE EXISTING SERVICES. REMOVE ALL OTHER STRUCTURES AND SERVICES.
5.

ESTABLISH LINES OF EXCAVATION AS REQUIRED NOT TO EXCEED MAXIMUM SLOPE OF EXCAVATION GIVEN IN THE GEOTECHNICAL REPORT. ANY DEVIATIONS FROM THIS DETAIL TO BE APPROVED BY THE GEOTECHNICAL CONSULTANT AND WSP-S.
6.

DESIGN AND PROVIDE SHORING AND BRACING FOR EXCAVATION WHERE NECESSARY.
7.

EXCAVATE TO EXPOSE NATIVE UNDISTURBED SOIL, AND TO ALLOW FOR MINIMUM COMPACTED BACKFILL AND CONSTRUCTION CLEARANCES AS REQUIRED. REMOVE ALL TOPSOIL, LOOSE FILL, DEBRIS, SOFT SPOTS AND ORGANIC MATERIALS.
8.

DIG TRENCHES FOR MECHANICAL AND ELECTRICAL SERVICES TO PROVIDE UNIFORM CONTINUOUS BEARING AND SUPPORT BEDDING MATERIAL ON UNDISTURBED SOIL. REFER TO MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS FOR TRENCH CONSTRUCTION DETAILS. AT A MINIMUM, FILL TRENCHES WITH SAND TO 300 (12") ABOVE PIPES OR CONDUITS.
9.

LEGALLY DISPOSE OF ALL EXCAVATED MATERIALS, OR STORE ON SITE FOR BACKFILLING OPERATIONS IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS AND PROJECT SPECIFICATIONS.
10.

PROTECT BOTTOM OF EXCAVATION FROM EXCESSIVE MOISTURE. USE GRANULAR FILL OR LEAN CONCRETE (MUD SLAB) AS RECOMMENDED IN THE GEOTECHNICAL REPORT. SLOPE FOR DRAINAGE. PROVIDE DRAINAGE TRENCHES AND PITS AND PUMP OUT WATER AS REQUIRED.
11.

GEOTECHNICAL ENGINEER TO REVIEW AND APPROVE ALL EXCAVATIONS BEFORE BACKFILLING OR PLACING CONCRETE.
12.

ALL BACKFILLING MATERIALS TO BE SOUND AND CLEAN, FREE FROM DEBRIS, ORGANIC AND FROZEN MATTER, WITH NO REACTIVE MINERALS NOR FRIABLE MATERIALS WITH SWELLING POTENTIAL
13.

GEOTECHNICAL ENGINEER TO REVIEW AND APPROVE ALL BACKFILLING MATERIALS.
14.

UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, BACKFILL TO GRADES INDICATED IN LIFTS NOT EXCEEDING 150(6"), USE MECHANICAL COMPACTION EQUIPMENT. DO NOT PLACE BACKFILL OVER FROZEN SOIL.
15.

USE ONLY LIGHT, HAND-OPERATED EQUIPMENT FOR COMPACTION ADJACENT TO BASEMENT WALLS AND RETAINING WALLS. DO NOT BACKFILL UNTIL ELEMENTS PROVIDING LATERAL SUPPORT, INCLUDING SLABS ON GRADE AND ALL SUSPENDED LEVELS, ARE COMPLETED AND CONCRETE HAS REACHED 75% OF ITS DESIGN STRENGTH. FOR ELEMENTS THAT ARE TO BE BACKFILLED ON BOTH SIDES, PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES SUCH THAT HEIGHTS DO NOT VARY BY MORE THAN 500 (1'-8") FROM ONE SIDE TO THE OTHER.
16.

MAINTAIN MOISTURE CONTENT IN BACKFILLING MATERIAL AS REQUIRED TO ACHIEVE THE SPECIFIED COMPACTION. PROTECT FROM EXCESSIVE MOISTURE DURING AND AFTER THE BACKFILLING OPERATION.
17.

UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, COMPACT BACKFILL TO ACHIEVE THE FOLLOWING STANDARD PROCTOR MAXIMUM DRY DENSITIES:

-

BELOW SLAB ON GRADE: 98%

-

BELOW PAVEMENT AND SIDEWALKS: 98%

-

BELOW LANDSCAPED AREAS: 95%
18.

AN INDEPENDENT INSPECTION AND TESTING AGENCY TO MONITOR COMPACTION AND CONDUCT DENSITY TESTING DURING INSTALLATION OF ALL GRANULAR MATERIALS.
19.

SITE SURFACE IS CURRENTLY SITTING LOWER THAN FINISHED SUBGRADE SURFACE. IF THERE IS A DEFICIT OF MATERIAL AVAILABLE WITHIN THE WASHROOM FOOTPRINT, THE CONTRACTOR IS TO LEVEL AND COMPACT AVAILABLE SUBGRADE MATERIAL INSIDE OF WASHROOM FOOTPRINT, AND TOP UP WITH SUITABLE IMPORTED GRAVEL MATERIAL TO ALLOW FLOOR SLAB TO BE COMPLETED.

FOUNDATIONS

1.

STRUCTURAL DESIGN IS BASED ON THE GEOTECHNICAL REPORT PREPARED BY WSP CANADA INC., REPORT NUMBER 181-13597-12, DATED JANUARY 21, 2019.
2.

REFER TO THE GEOTECHNICAL REPORT FOR DETAILED INFORMATION ON GEOTECHNICAL CONDITIONS, FOUNDATION RECOMMENDATIONS, AND FOR ALL EARTHWORK INCLUDING EXCAVATION, BACKFILL AND SUBGRADE PREPARATION.
3.

ASSUMED FOOTING BEARING RESISTANCE:
 375 kPa AT ULS (ULTIMATE LIMIT STATES DESIGN)
4.

CONSTRUCT ALL FOOTINGS ON STRATA CAPABLE TO PROVIDE THE BEARING RESISTANCE NOTED, BUT NOT ABOVE THE ELEVATIONS INDICATED ON DRAWINGS.
5.

STRUCTURAL DRAWINGS SHOW FOOTINGS AT ELEVATIONS WHERE THE REQUIRED BEARING RESISTANCE IS ANTICIPATED. GEOTECHNICAL CONSULTANT TO REVIEW AND APPROVE IN WRITING ALL BEARING SURFACES PRIOR TO CONSTRUCTING FOOTINGS.
6.

IF THE ASSUMED BEARING RESISTANCE IS NOT OBTAINED AT THE UNDERSIDE OF FOOTING ELEVATION INDICATED ON DRAWINGS, EXTEND EXCAVATION UNTIL COMPETENT SOIL IS REACHED, AND PROVIDE LEAN CONCRETE FILL (OR CONCRETE SAME AS SPECIFIED FOR THE FOOTING) TO UNDERSIDE OF FOOTING. DO NOT DROP DOWELS; MAINTAIN THE SPECIFIED PROJECTION REQUIRED FOR LAPS.
7.

PROVIDE MIN. 50 (2") DEEP MUD SLAB AS REQUIRED TO PROTECT BOTTOM OF EXCAVATION AND PLACE REBAR, AND IN ALL CASES WHERE RECOMMENDED IN GEOTECHNICAL REPORT OR SHOWN ON DRAWINGS.
8.

UNLESS OTHERWISE NOTED, THE LONGER DIMENSION OF RECTANGULAR SPREAD FOOTINGS TO BE PARALLEL TO THE LONGER COLUMN DIMENSION (FOR CONCRETE COLUMNS), OR TO COLUMN WEB (FOR STEEL COLUMNS).
9.

FOR FROST PROTECTION, MINIMUM DISTANCE FROM FINISHED GRADE TO UNDERSIDE OF FOOTING TO BE NOT LESS THAN:

-

AT BUILDING PERIMETER ADJACENT TO HEATED AREAS: 1500mm

-

IN UNHEATED AREAS: 2100mm
10.

WHERE UNDERSIDES OF PERIMETER WALLS ARE SHOWN SUCH THAT THE REQUIRED FROST PROTECTION INDICATED ABOVE IS NOT PROVIDED, PROVIDE FROST CUSHION BELOW THE FULL LENGTH OF WALLS. REFER TO GEOTECHNICAL REPORT FOR MINIMUM THICKNESS OF THE FROST CUSHION.
11.

UNLESS OTHERWISE NOTED, LONGER DIMENSION OF RECTANGULAR PIER TO BE PARALLEL TO THE LONGER COLUMN DIMENSION (FOR CONCRETE COLUMNS), OR TO THE COLUMN WEB (FOR STEEL COLUMNS)
12.

UNLESS OTHERWISE NOTED, CENTRE FOOTINGS AND PIERS UNDER CENTROID OF COLUMNS. WHERE THERE ARE NO COLUMNS ABOVE, CENTER UNDER WALLS OR GRADE BEAMS. FOR LOCATIONS OF PILES AT WALL / GRADE BEAM CORNERS, SEE TC-FDN-18.
13.

MODULUS OF SUBGRADE REACTION ASSUMED FOR DESIGN OF SLABS ON GRADE IS 15 kN/m3 . CONSTRUCT SUBGRADE IN ACCORDANCE WITH SOILS REPORT.
14.

LOCATE ALL EXISTING UNDERGROUND SERVICES PRIOR TO EXCAVATION.

15.

THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR TRENCHES NOT TO EXCEED A RISE OF 1 IN A RUN OF 1. REFER TO TYPICAL DETAIL TC-FDN-41.
16.

KEEP EXCAVATION DRAINED AND FREE OF WATER AT ALL TIMES.
17.

PROTECT FOOTINGS, PIERS, FOUNDATION WALLS, SLABS-ON-GRADE AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION. DO NOT POUR CONCRETE AGAINST FROZEN EARTH.
18.

DO NOT USE EARTH FORMS UNLESS APPROVED IN WRITING BY WSP-S AND GEOTECHNICAL CONSULTANT. FOR ELEMENTS APPROVED TO BE CAST AGAINST SOIL, INCREASE FOOTING SIZE SHOWN ON DRAWINGS AS REQUIRED TO OBTAIN 75 (3") CONCRETE COVER AGAINST SOIL.
19.

UNLESS OTHERWISE NOTED, LAP ALL HORIZONTAL GRADE BEAM REINFORCEMENT WITH CLASS B LAPS. CARRY CONTINUOUSLY THROUGH PIERS AND PILE CAPS WHERE APPLICABLE.
20.

PLACE ANCHOR RODS AND DOWELS BEFORE CONCRETE IS CAST. USE TEMPLATES TO KEEP IN POSITION.
21.

UNLESS NOTED OTHERWISE, PROVIDE DRAINAGE WITH WEEPING TILE TIED INTO MECHANICAL DRAINAGE SYSTEM AT ALL BASEMENT WALLS. REFER TO GEOTECHNICAL REPORT FOR FREE DRAINING BACKFILL REQUIREMENTS AND GROUND WATER FLOW.
22.

FOR ELEMENTS THAT ARE TO BE BACKFILLED ON BOTH SIDES, PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES SUCH THAT HEIGHTS DO NOT VARY BY MORE THAN 600 (2'-0") FROM ONE SIDE TO THE OTHER.

CAST-IN-PLACE CONCRETE

1.

CONCRETE IS SPECIFIED PER ALTERNATIVE 1 - PERFORMANCE SPECIFICATION, AS OUTLINED IN CSA A23.1. THE CONTRACTOR AND THE CONCRETE SUPPLIER TO MEET ALL CERTIFICATION, DOCUMENTATION, AND QUALITY CONTROL REQUIREMENTS.
2.

CONTRACTOR AND CONCRETE SUPPLIER TO ENSURE THAT PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING AND THE SPECIFIED PERFORMANCE REQUIREMENTS.
3.

CONCRETE SUPPLIER TO BE CERTIFIED BY THE ALBERTA READY MIXED CONCRETE ASSOCIATION.
4.

CEMENT TO BE PORTLAND CEMENT TYPE GU UNLESS NOTED OTHERWISE OR REQUIRED BY EXPOSURE CLASS.
5.

CONCRETE TO BE NORMAL DENSITY (MIN. 2300 kg/m3) UNLESS NOTED OTHERWISE.
6.

NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE TO BE 20 (3/4") UNLESS NOTED OTHERWISE.
7.

UNLESS NOTED OTHERWISE, CONCRETE TO BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
SLABS:

-

EXPOSURE CLASS: N

-

MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 25 MPa

-

NOMINAL SIZE OF COARSE AGGREGATE: 20 (3/4")

-

AIR CONTENT RANGE: 4%-7%

FOUNDATIONS:

-

EXPOSURE CLASS: F2

-

MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 25 MPa

-

NOMINAL SIZE OF COARSE AGGREGATE: 20 (3/4")

-

AIR CONTENT RANGE: 4%-7%

-

8.

REFER TO CSA A23.1 FOR THE MAXIMUM WATER/CEMENT RATIO, MINIMUM COMPRESSIVE STRENGTH, AIR CONTENT, CURING REQUIREMENTS, CHLORIDE ION PENETRABILITY AND ALTERNATE CEMENT TYPES TO MEET THE REQUIREMENTS FOR THE NOTED EXPOSURE CLASS.

9.

WHERE REQUIRED BY SPECIFICATIONS, PROVIDE MINIMUM AMOUNT OF SUPPLEMENTAL CEMENTING MATERIALS SPECIFIED FOR THE OVERALL PROJECT.

10.

DO NOT ADD WATER TO CONCRETE ON SITE.

11.

CONVEY CONCRETE FROM TRUCK TO FINAL LOCATION BY METHODS WHICH WILL PREVENT SEPARATION OR LOSS OF MATERIAL. MAXIMUM FREE FALL NOT TO EXCEED 1.5m (5'-0"). CONSOLIDATE CONCRETE USING MECHANICAL VIBRATORS.

12.

PLACE CONCRETE AS CLOSE AS POSSIBLE TO FINAL LOCATION TO AVOID SEGREGATION. VIBRATE ALL CONCRETE.

13.

PROTECT CONCRETE FROM FREEZING. DO NOT PLACE CONCRETE AGAINST FROZEN GROUND. USE COLD WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.

14.

PROTECT CONCRETE FROM EXCESSIVE HEAT AND DRYING. USE HOT WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.

15.

CONTRACTOR IS RESPONSIBLE TO PROVIDE HEATING AND HOARDING, IF REQUIRED.

16.

SLABS

1.

DO NOT USE STEEL TROWEL TO FINISH AIR-ENTRAINED CONCRETE.

2.

FOR SLABS-ON-GRADE, LOCATE ALL CONDUITS, PIPES, OR HEATING CABLES EMBEDDED IN CONCRETE CLEAR OF THE TOP ONE THIRD OF THE SLAB THICKNESS TO AVOID DAMAGE DURING SAWCUTTING.

3.

FOR SLABS TO RECEIVE RESILIENT FLOORING AND OTHER SENSITIVE FLOOR FINISHES, REFER TO SPECIFICATIONS FOR SPECIAL CURING REQUIREMENTS. MONITOR SLAB MOISTURE CONTENT AND DO NOT APPLY FINISHES BEFORE THE MOISTURE CONTENT IS FOUND TO BE WITHIN THE ACCEPTABLE RANGE.

17.

CONSTRUCTION & CONTROL JOINTS

1.

PROVIDE JOINTS WHERE SPECIFIED OR SHOWN ON DRAWINGS. LOCATE SO AS NOT TO IMPAIR THE REQUIRED STRENGTH OF THE STRUCTURE. SUBMIT JOINT LAYOUT FOR WSP-S REVIEW AND APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO POURING CONCRETE. REFER TO TYPICAL DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

2.

UNLESS OTHERWISE NOTED, PROVIDE STANDARD CONTINUOUS 38 x 89 (2x4) FORMED KEYS AT ALL CONSTRUCTION JOINTS. CENTER AT JOINTS AND CHAMFER SIDES.

3.

IF A SPECIFIC CONSTRUCTION JOINT DETAIL IS SHOWN ON DRAWINGS, IT CAN NOT BE SUBSTITUTED BY ANY ALTERNATIVE CONSTRUCTION JOINT DETAIL.

4.

SLABS ON GRADE: UNLESS NOTED OTHERWISE, PROVIDE CONSTRUCTION JOINTS AT 30m (100ft) MAXIMUM IN BOTH DIRECTIONS, WITH CONTROL JOINTS IN BETWEEN AT 25 TIMES THE SLAB THICKNESS, BUT NOT MORE THAN 4.5 m (15ft). LONGER DIMENSION OF ANY SOG SEGMENT CREATED BY CONSTRUCTION AND CONTROL JOINTS NOT TO EXCEED 1.25 TIMES THE SHORTER DIMENSION OF THE SEGMENT. CONSIDER SLAB DEPRESSIONS AND PITS WHEN PROPOSING LAYOUT, AND SHOW ON LAYOUT DRAWINGS. COMPLETE SAWCUTTING WITHIN 6 TO 18 HOURS OF PLACING CONCRETE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

5.

HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE WALLS (OTHER THAN AT UNDERSIDE OF SLABS) ARE NOT PERMITTED, EXCEPT WHERE SHOWN ON THESE DRAWINGS.

6.

FOUNDATION WALLS: PROVIDE VERTICAL CONSTRUCTION JOINTS AT 30m (100ft) MAXIMUM.

LEGEND

DRAWING LIST

DRAWING No	DRAWING NAME
S100	GENERAL NOTES
S110	TYPICAL DETAILS
S111	TYPICAL AND PROJECT DETAILS
S112	TYPICAL DETAILS
S200	FOUNDATION, MAIN FLOOR PLAN AND SECTIONS

10	2022.08.03	ISSUED FOR REVIEW	RDP	EML
9	2022.02.09	ISSUED FOR FINAL REVIEW	RDP	EML
8	2022.02.01	ISSUED FOR PC REVIEW	RDP	EML
7	2021.11.03	ISSUED FOR PC REVIEW	RDP	EML
6	2021.10.13	ISSUED FOR PC REVIEW	RDP	EML
5	2021.10.01	ISSUED FOR PC REVIEW	RDP	EML
4	2021.09.03	ISSUED FOR PC REVIEW	RDP	EML
3	2021.08.13	ISSUED FOR PC REVIEW	RDP	EML
2	2020.02.14	ISSUED FOR 65% REVIEW	RDP	EML
1	2019.08.20	ISSUED FOR REVIEW	RDP	EML
No.	Date/Date	Description/Description	Drawn by Dessine par	Approved Approuve
Revision / Revision				
<div><div><div>A</div><div>C</div></div><div>A detail number numero de detail</div><div>B source drawing no. de dessin no.</div><div>C detail on drawing no. detail sur dessin no.</div></div>				
Consultant's Name Nom de l'expert- conseil			Eng. Stamp Sceau de l'ingenieur	
<div><div><div><div><div></div><div>wsp</div></div><div><div>WSP Canada Inc 729 10 Street Suite 203 Camrose, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com</div></div></div><div><div>Public Works and Government Services Canada</div><div>Client Services Team Southern Alberta Operations Branch</div></div><div><div>Travaux publics et Services gouvernementaux Canada</div><div>Le Client Entretient l'Equipe Alberta Meridional Branche d'Operations</div></div></div></div>				
Client/client			Parks Canada Agence	
			L'Agence Parcs Canada	
Western and Northern Region			Ouest et Nord du Canada	
Project title/Titre du projet				
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)				
BANFF NATIONAL PARK, ALABETA				
Drawing title/Titre du dessin				
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)				
Surveyed by/Arpente par PARKS CANADA				
Drawn by/Dessine par RDP		Date/Date 03AUG2022		
Designed by/Concept par KAV		Reviewed by/Revise par EML		Scale/Echelle NTS
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN				
Client Acceptance/Acceptation du client			Approved by/Approuve par	
Park Responsible Officer/Agent Responsable			PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet 19M- 01812- 00		Asset No./No. du bien		Sheet No./ No. de la feuille 16 33
Drawing Reference No./No. de reference du dessin S100				

CONCRETE REINFORCEMENT

1.

REINFORCEMENT TO CONFORM TO THE FOLLOWING STANDARDS:

DEFORMED BARS - CSA G30.18, GRADE 400R, UNLESS GRADE 500R / 500W IS INDICATED ON DRAWINGS. WHERE REBAR ARE SHOWN TO BE WELDED USE ONLY GRADE 400W/500W.

WELDED WIRE FABRIC - ASTM A1064/A1064M, YIELD STRENGTH 450 MPA, SUPPLIED IN FLAT SHEETS ONLY.
2.

ALL REINFORCING BAR SIZES ARE METRIC; "M" IS NOT NECESSARILY MARKED AFTER A BAR SIZE. FOR EXAMPLE, 10-15B NOTED ON PLAN INDICATES 10 BARS OF 15M DIAMETER, PLACED AT BOTTOM.
3.

BARS MARKED CONTINUOUS TO BE TERMINATED IN STANDARD HOOKS AT ENDS AND SPLICED USING CLASS B LAPS. FOR LAP LENGTHS AND DEVELOPMENT LENGTHS, REFER TO TYPICAL DETAILS TC-REINF-01.
4.

ALL REBAR HOOKS TO BE STANDARD LENGTH 90° OR 180° HOOKS. REBAR LENGTHS LISTED ON DRAWINGS DO NOT INCLUDE THE HOOK LENGTH.
5.

UNLESS A SPECIFIC STIRRUP SHAPE IS INDICATED ON PLANS OR SCHEDULES, ALL STIRRUPS TO BE CLOSED HOOPS.
6.

WHERE TWO BARS OF DIFFERENT SIZE ARE LAPPED IN TENSION, SPLICE LENGTH TO BE EQUAL TO THE SMALLER BAR'S TENSION LAP SPLICE, OR TO THE LARGER BAR'S TENSION DEVELOPMENT LENGTH, WHICHEVER IS LONGER.
7.

WHERE TWO BARS OF DIFFERENT SIZE ARE LAPPED IN COMPRESSION, SPLICE LENGTH TO BE EQUAL TO THE SMALLER BAR'S COMPRESSION LAP SPLICE, OR TO THE LARGER BAR'S COMPRESSION DEVELOPMENT LENGTH, WHICHEVER IS LONGER.
8.

PROVIDE ADDITIONAL SUPPORT BARS AS REQUIRED TO ADEQUATELY SUPPORT AND SECURE ALL REINFORCEMENT AND PREVENT MOVEMENT WHEN PLACING CONCRETE.
9.

PROVIDE SUFFICIENT CHAIRS TO REINFORCING TO MAINTAIN SPECIFIED CONCRETE COVER.
10.

ALL REINFORCING TO BE CLEAN, FREE OF LOOSE SCALE, OIL, DIRT, RUST, AND ANY OTHER FOREIGN COATING THAT AFFECT BONDING CAPACITY.
11.

MINIMUM CLEAR SPACING BETWEEN ADJACENT BARS TO BE AT LEAST 1.4 TIMES THE BAR DIAMETER OR 1.4 TIMES THE NOMINAL MAXIMUM SIZE OF THE COARSE AGGREGATE, WHICHEVER IS MORE.
12.

UNLESS NOTED OTHERWISE ON DRAWINGS MINIMUM CONCRETE COVER TO PRINCIPAL REINFORCEMENT TO BE AS FOLLOWS:

EXPOSURE CLASS:	N/F2
SURFACES CAST AGAINST GROUND	75 (3")
FOOTINGS	≤ 35M: 40 (1-5/8")
SLAB ON GRADE - TOP COVER	≤ 25M: 40 (1-5/8")
SLAB ON GRADE NOT CAST AGAINST GROUND - BOTTOM COVER	
(CAST ON MUD SLAB, VAPOUR BARRIER, RIGID INSULATION)	≤ 30M: 60 (2-3/8")
FOUNDATION WALLS	≤ 25M: 40 (1-5/8")

- NOTES:
1.

COVERS SHOWN ABOVE ASSUME 20 (3/4") MAXIMUM NOMINAL SIZE OF CONCRETE AGGREGATE (Øa). REFER TO CONCRETE MIX DESIGN TABLE IN CAST-IN-PLACE CONCRETE NOTES FOR CONCRETE WITH LARGER AGGREGATE SIZE, AND INCREASE COVER TO REINFORCING CLOSEST TO THE SURFACE BY 1.0x Øa FOR 2.0x Øa FOR "C1" CONCRETE.
2.

FOR BARS WITH 90° HOOKS, MINIMUM COVER NOT TO BE LESS THAN SHOWN ON TC-REINF-01.
3.

INCREASE THE COVER SPECIFIED FOR PT REINFORCING TO ACCOMMODATE THE MINIMUM COVER TO THE MILD STEEL CROSSING OVER IT.
13.

SLABS
1.

UNLESS NOTED OTHERWISE, DO NOT ELIMINATE OR CUT REINFORCEMENT TO ACCOMMODATE MECHANICAL AND ELECTRICAL SLEEVES, OPENINGS OR HARDWARE. SPREAD REINFORCING AROUND SLEEVES.

POST-INSTALLED ANCHORS AND DOWELS

1.

UNLESS OTHERWISE NOTED, PROVIDE STRUCTURAL ANCHORS AS FOLLOWS:
1.

WHERE DRILLED CONCRETE ANCHORS (DCA) OR DRILLED MASONRY ANCHORS (DMA) ARE NOTED ON DRAWINGS, PROVIDE HILTI KWIK BOLT - TZ2 EXPANSION ANCHORS OR APPROVED EQUIVALENT. LOCATE DMA MIN. 35 (1-3/8") FROM ANY VERTICAL MORTAR JOINT. DO NOT INSTALL DMA INTO HOLLOW MASONRY, ADVISE WSP-S IF HOLLOW MASONRY IS FOUND ON SITE WHERE DMA HAVE BEEN SPECIFIED.
2.

WHERE ADHESIVE CONCRETE ANCHORS (ACA) ARE NOTED ON DRAWINGS, PROVIDE HILTI HIT-HY 200 ADHESIVE ANCHORING SYSTEM WITH HILTI HIT-Z ANCHOR RODS OR APPROVED EQUIVALENT.
3.

WHERE ADHESIVE MASONRY ANCHORS (AMA) ARE NOTED ON DRAWINGS, PROVIDE HILTI HIT-HY 270 ADHESIVE ANCHORING SYSTEM WITH HAS-V THREADED RODS OR APPROVED EQUIVALENT.
4.

WHERE REBAR DOWEL ANCHORS (RDA) ARE NOTED ON DRAWINGS, PROVIDE HILTI HIT-RE 500 V3 (FOR ANCHORAGE TO CONCRETE) OR HILTI HIT-HY 270 (FOR ANCHORAGE TO SOLID OR GROUTED MASONRY) ADHESIVE ANCHORING SYSTEM INSTALLED USING HILTI SAFESET HOLLOW DRILL BIT TECHNOLOGY OR APPROVED EQUIVALENT.
5.

WHERE HOLLOW MASONRY ANCHORS (HMA) ARE NOTED ON DRAWINGS, PROVIDE HILTI HIT-HY 270 ADHESIVE ANCHORING SYSTEM WITH HIT-SC MESH SLEEVE AND HAS-V THREADED RODS OR APPROVED EQUIVALENT.
2.

IN ORDER TO BE ACCEPTED, ANY ALTERNATIVES TO THE HILTI PRODUCTS SPECIFIED ABOVE MUST BE ACCOMPANIED BY TESTING DATA AND ICC-ES REPORTS DEMONSTRATING THAT THEIR PERFORMANCE (INCLUDING SUITABILITY FOR SEISMIC APPLICATIONS, CAPACITY IN CRACKED CONCRETE AND CAPACITY REDUCTIONS DUE TO SPACING AND EDGE DISTANCE) IS EQUIVALENT TO THE PERFORMANCE OF HILTI PRODUCTS. IN ADDITION, THAT PERFORMANCE MUST BE ACHIEVED USING INSTALLATION TOOLS AND PROCEDURES WHICH DO NOT REQUIRE DRILLED HOLES TO BE CLEANED PRIOR TO ANCHOR INSTALLATION.
3.

ANCHORS LOCATED OUTSIDE THE BUILDING ENVELOPE'S VAPOUR BARRIER TO BE STAINLESS STEEL.
4.

CONCRETE TO BE MINIMUM 28 DAYS OLD AT THE TIME OF ANCHOR INSTALLATION.
5.

USE DRILLING AND INSTALLATION TOOLS AND PROCEDURES PER MANUFACTURER'S RECOMMENDATIONS. DO NOT CORE DRILL UNLESS SPECIFICALLY NOTED ON DRAWINGS. HOLE DIAMETERS NOT TO EXCEED THOSE REQUIRED BY MANUFACTURER.
6.

WHERE CORE DRILLING IS SPECIFIED, CLEAN AND ROUGHEN HOLES PER MANUFACTURER'S RECOMMENDATION.
7.

ARRANGE FOR THE ANCHOR MANUFACTURER TO CONDUCT ON SITE TRAINING FOR INSTALLATION OF ALL THE PRODUCTS SPECIFIED, AND FOR ALL CONDITIONS ENCOUNTERED (E.G. HORIZONTAL, INCLINED, OVERHEAD). ALL INSTALLERS MUST COMPLETE THE SUPPLIER CERTIFIED INSTALLER TRAINING PROGRAM. SUBMIT COPIES OF COMPLETION CERTIFICATES FOR WSP-S RECORD.
8.

ARRANGE FOR A MANUFACTURER'S TECHNICAL REPRESENTATIVE TO BE PRESENT DURING INSTALLATION OF FIRST FEW ANCHORS OF EACH SIZE AND TYPE. SUBMIT SITE REPORTS INDICATING ANCHOR TYPES AND SIZES INSTALLED, LOCATIONS AND INSTALLERS' NAMES.
9.

ANCHOR AND DOWEL CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND THEIR PROXIMITY TO CONCRETE AND MASONRY EDGES; THEREFORE, ALL ANCHORS MUST BE INSTALLED WITH CLEARANCES AND EDGE DISTANCES INDICATED ON DRAWINGS
10.

UNLESS CORE DRILLING IS SPECIFIED ON DRAWINGS, DO NOT CUT REINFORCEMENT TO ACCOMMODATE DRILLED ANCHORS AND DOWELS. SCAN THE STRUCTURE TO LOCATE REINFORCEMENT PRIOR TO FABRICATING STRUCTURAL STEEL FASTENED BY DRILLED ANCHORS.

11.

WHEN OBSTRUCTIONS PREVENT DRILLING HOLES IN SPECIFIED LOCATIONS TO THE REQUIRED DEPTH, RELOCATE AT NO EXTRA COST TO THE CONTRACT. OBTAIN WSP-S APPROVAL OF NEW LOCATIONS BEFORE DRILLING; MODIFICATIONS TO CONNECTED MEMBERS AND ADDITIONAL ANCHORS / DOWELS MAY BE REQUIRED. FILL ABANDONED HOLES WHICH ARE CLOSER THAN 3 TIMES THE HOLE DIAMETER FROM THE RELOCATED ANCHORS WITH HILTI HY-200 ADHESIVE OR WITH 30 MPa GROUT. DO NOT TIGHTEN ANCHORS UNTIL THE FILLER HAS FULLY CURED.
12.

UNLESS OTHERWISE NOTED ON DRAWINGS, EMBEDMENT LENGTHS FOR POST-INSTALLED HILTI ANCHORS TO BE:
- | ANCHOR SIZE | EXPANSION ANCHORS | | ADHESIVE ANCHORS | | |
|-------------|---------------------|--------------------|---------------------------------|-------------------------------------|---|
| | INTO CONCRETE (DCA) | INTO MASONRY (DMA) | INTO CONCRETE (ACA) | INTO SOLID OR GROUTED MASONRY (AMA) | INTO HOLLOW MASONRY (HMA) |
| | KB-TZ2 | | HIT-Z ROD + HIT HY-200 ADHESIVE | HAS-V ROD + HIT HY-270 ADHESIVE | HAS-V ROD + HIT-SC SCREEN + HIT HY-270 ADHESIVE |
| | | | | HOLLOW CONCRETE BLOCK | HOLLOW BRICK |
| 10 (3/8") | 64 (2-1/2") | | 86 (3-3/8") | | 50 (2") |
| 12 (1/2") | 83 (3-1/4") | | 114 (4-1/2") | | 50 (2") |
| 16 (5/8") | 102 (4") | | 143 (5-5/8") | | - |
| 19 (3/4") | 121 (4-3/4") | | 171 (6-3/4") | | - |
- NOTES:

1.

ALL EMBEDMENT LENGTHS SHOWN ARE EFFECTIVE EMBEDMENT LENGTHS; FOR REQUIRED HOLE DEPTHS FOLLOW HILTI RECOMMENDATIONS.

2.

SEE DRAWINGS FOR EMBEDMENT LENGTHS OF REBAR DOWEL ANCHORS (RDA).

13.

IF ANCHORS OTHER THAN THE HILTI PRODUCTS SPECIFIED ABOVE ARE APPROVED TO BE USED, ANCHOR SUPPLIER TO ESTABLISH THE EMBEDMENT LENGTHS REQUIRED TO ACHIEVE PERFORMANCE EQUIVALENT TO THE HILTI PRODUCTS EMBEDDED AS INDICATED IN THE TABLE ABOVE.

14.

DO NOT BEND POST INSTALLED DOWELS AND RODS AFTER INSTALLATION.

15.

DO NOT WELD TO PLATES FASTENED WITH ADHESIVE ANCHORS AFTER THE ADHESIVE IS PLACED.
- WOOD FRAMING
1.

CONFORM TO CSA 086.

2.

MATERIALS:

1.

LUMBER: GRADE MARKED TO CONFORM TO CSA 0141; KILN DRIED; SPF NO. 2 OR BETTER; MOISTURE CONTENT NOT TO EXCEED 19% AT TIME OF MANUFACTURE AND INSTALLATION; UNLESS NOTED OTHERWISE.

2.

PLYWOOD SHEATHING: TO CSA 0151 SOFTWOOD SPRUCE; OR CSA 0121 DOUGLAS FIR

3.

PARALLEL STRAND LUMBER (PSL): MINIMUM GRADE 2.0E, 2900Fb (Fb=37MPa) OR BETTER

4.

LAMINATED STRAND LUMBER (LSL): MINIMUM GRADE 1.3E, 1700Fb (Fb=29.7MPa) OR BETTER

5.

NAILS: COMMON ROUND STEEL WIRE NAILS

6.

WOOD BOLTS: ASTM A307. ALL ANCHOR BOLTS TO BE STAINLESS STEEL OR GALVANIZED TO ACCOMODATE PRESSURE TREATED SILL PLATE.

7.

LAG SCREWS: ANSI/ASME B18.12.1. MACHINE THREADED (NOT CAST-THREADED). PREDRILL PRIOR TO LAG SCREW INSTALLATIONS.

8.

WOOD CONNECTORS: MANUFACTURED BY SIMPSON STRONG - TIE COMPANY OR APPROVED EQUIVALENT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

9.

HOT DIP GALVANIZING: ASTM A123/A123M, MINIMUM ZINC COATING OF 600 g/m². FOR ALL EXTERIOR STEEL TIMBER CONNECTION COMPONENTS, UNLESS NOTED OTHERWISE.

3.

UNLESS NOTED OTHERWISE, ALL WOOD FRAMING DETAILS TO BE IN ACCORDANCE WITH PART 9 OF THE REFERENCED BUILDING CODE.

4.

PROTECT ALL WOOD PRODUCTS FROM THE ELEMENTS AS REQUIRED TO MAINTAIN THEIR INTEGRITY.

5.

PROVIDE ALL ERECTION BRACING REQUIRED TO KEEP THE STRUCTURE STABLE AND IN ALIGNMENT DURING CONSTRUCTION.

6.

SUBSTITUTION OF COMMON NAILS WITH POWER DRIVEN NAILS OF THE SAME LENGTH AND DIAMETER IS ACCEPTABLE. SUBSTITUTION OF POWER DRIVEN NAILS OF SMALLER DIAMETER MUST BE APPROVED IN WRITING BY WSP-S PRIOR TO USE. POWER DRIVEN NAILS NOT TO BE OVER-DRIVEN INTO WOOD OR SHEATHING.

7.

MEMBER SIZES INDICATED ON DRAWINGS ARE A MINIMUM AND ARE TO BE INCREASED AS REQUIRED TO MEET DESIGN FOLLOWING THE ORIGINAL DESIGN INTENT.

8.

PROPOSED NOTCHING AND DRILLING OF FRAMING MEMBERS MUST BE SUBMITTED TO THE ENGINEER RESPONSIBLE FOR THOSE FRAMING MEMBERS FOR THEIR REVIEW. SIGNIFICANT NOTCHES CONFORMING TO PART 9 MAY BE REJECTED IF THEY COMPROMISE THE STRUCTURAL INTEGRITY.

9.

ALL COMPONENTS OF BUILT UP MEMBERS TO BE CONTINUOUS FOR FULL SPAN. DO NOT SPLICE OR USE BUTT JOINTS.

10.

UNLESS NOTED OTHERWISE, BUILT-UP TIMBER COLUMNS TO BE FASTENED AS PER TYPICAL DETAIL TW-FAST-01.

11.

UNLESS NOTED OTHERWISE ON PLAN OR BY FLOOR/ROOF SYSTEM ENGINEER, BUILT-UP BEAMS TO BE FASTENED AS PER TYPICAL DETAIL TW-FAST-02.

12.

CARRY ALL POSTS DOWN TO FOUNDATION. PROVIDE SOLID VERTICAL BLOCKING OF MATCHING SIZE OR LARGER AND IN LINE WITH POSTS AT FLOOR LEVELS.

13.

USE JOISTS HANGERS WHERE JOISTS FRAME INTO SIDES OF SUPPORTS.

14.

PROVIDE SOLID BLOCKING BETWEEN JOISTS AT INTERIOR SUPPORTS, AND PROVIDE CROSS-BRIDGING BETWEEN JOISTS AT MAX. 2100 (7'-0") ON CENTRE ALONG LENGTH OF SPAN, UNLESS NOTED OTHERWISE.

15.

ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED WOOD. REFER TO PLANS FOR ADDITIONAL REQUIREMENTS.

16.

PROVIDE SOLID WOOD BACKING FOR ALL INTERIOR FIXTURE MOUNTING. IE. 3/4" PLYWOOD OR DIMENSIONAL LUMBER FASTENED TO ADJACENT STUDS.

17.

PREFABRICATED WOOD ROOF TRUSSES:

1.

TRUSSES TO BE SUPPLIED BY A MEMBER OF THE CANADIAN WOOD TRUSS ASSOCIATION.

2.

DESIGN TO THE REFERENCED BUILDING CODE FOR LOADS GIVEN ON THE STRUCTURAL DRAWINGS.

3.

DESIGN FOR THE MAXIMUM DEFLECTIONS NOTED IN PLAN NOTES.

4.

COMPLY WITH THE TRUSS PLATE INSTITUTE OF CANADA (TPIC) DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED PRIOR TO FABRICATION. SHOP DRAWINGS TO INCLUDE MATERIAL GRADES, CALCULATIONS, LAYOUT DRAWINGS, BEARINGS AND ANCHORAGE DETAILS. CONNECTION DETAILS BETWEEN TRUSSES AND THEIR SUPPORTS, AND TEMPORARY AND PERMANENT BRACING AND BRIDGING DETAILS AFFECTING THE STRUCTURAL CAPACITY OF THE TRUSSES.
5.

ALIGN WEB PATTERNS ON ADJACENT TRUSSES FOR MECHANICAL DUCT ALIGNMENTS, ETC. UNLESS NOTED OTHERWISE.

6.

DESIGN TRUSSES TO SUPPORT ALL OVERBUILD FRAMING AS REQUIRED TO ACCOMMODATE THE ROOF GEOMETRY. ROOF SHEATHING NOT TO BE INTERRUPTED BY OVERBUILD CONSTRUCTION.

7.



VAULTED TRUSSES NOT TO RELY ON LOAD BEARING WALLS TO RESTRAIN HORIZONTAL SPREADING OF THE TRUSS.

8.

PROVIDE A STAMPED LETTER FROM THE ENGINEER RESPONSIBLE FOR TRUSS DESIGN CONFIRMING THAT THE TRUSS CALCULATIONS (INCLUDING LOAD INPUTS INTO THE PROGRAM USED FOR THE TRUSS DESIGN) HAVE BEEN REVIEWED.
- LEGEND

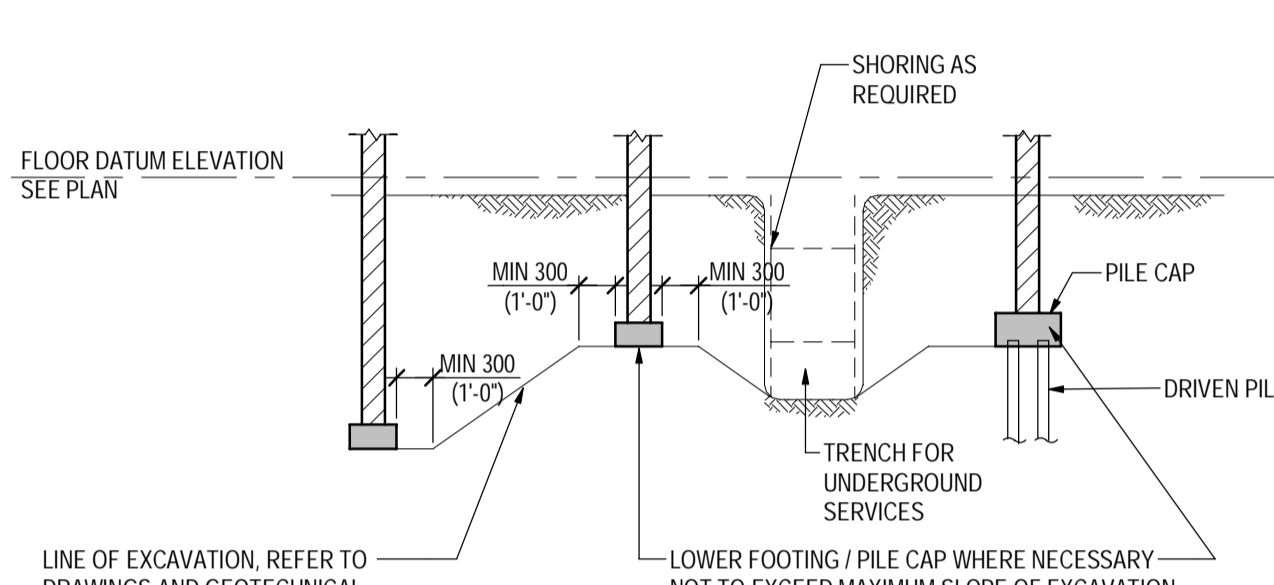
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2	2020.02.14	ISSUED FOR 65% REVIEW	RDP	EML
1	2019.08.20	ISSUED FOR REVIEW	RDP	EML

No.	Date/Date	Description/Description	Drawn by Dessine par	Approved Approuve
Revision / Revision				
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		B source drawing no. de dessin no.		
		C detail on drawing no. detail sur dessin no.		

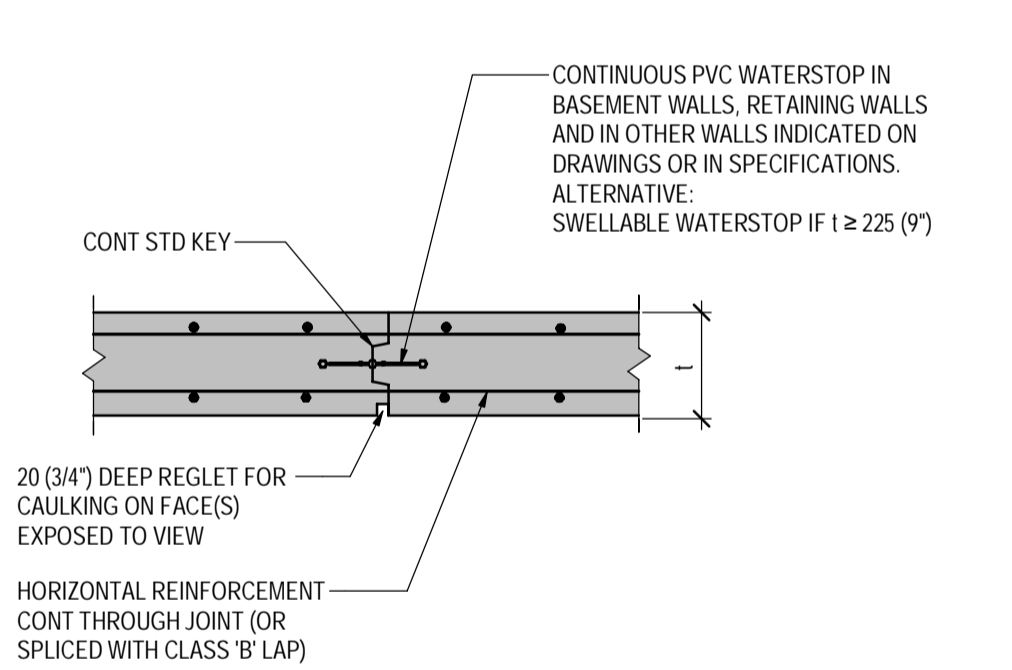
Consultant's Name Nom de l'expert- conseil	Eng. Stamp Sceau de l'ingenieur	
<div><div>wsp</div><div>WSP Canada Inc 729 10 Street Suite 203 Camrose, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com</div></div>		
<div><div></div><div>Public Works and Government Services Canada</div></div>	<div><div>Travaux publics et Services gouvernementaux Canada</div></div>	
<div><div>Client Services Team Southern Alberta Operations Branch</div></div>	<div><div>Le Client Entretien l'Equipe Alberta Meridional Branche d'Operations</div></div>	
<div><div>Canada</div></div>		
Client/client	<div><div></div><div>Parks Canada Agency</div></div> <div><div>Western and Northern Region</div></div>	<div><div>L'Agence Parcs Canada</div></div> <div><div>Ouest et Nord du Canada</div></div>
Project title/Titre du projet		
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)		
BANFF NATIONAL PARK, ALABETA		
Drawing title/Titre du dessin		
GENERAL NOTES		
Surveyed by/Arpente par PARKS CANADA	Drawn by/Dessine par RDP	Date/Date 03AUG2022
Designed by/Concept par KAV	Reviewed by/Revise par EML	Scale/Echelle NTS
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuve par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 19M- 01812- 00	Asset No./No. du bien	Sheet No./ No. de la feuille 17 33
Drawing Reference No./No. de reference du dessin S101		

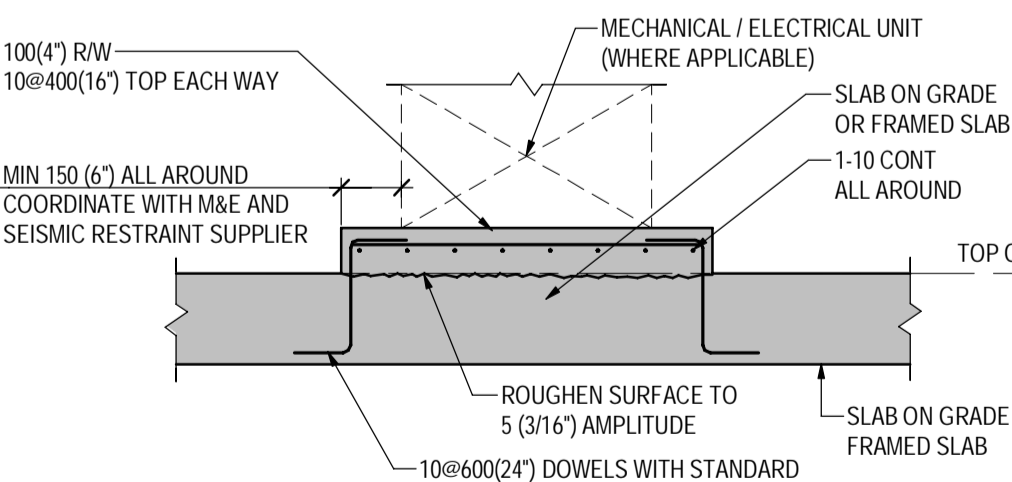
DRAWING ABBREVIATIONS				TG-ABBR-01	
ABUT	ABUTMENT	DP	DEEP	δd	TENSION DEVELOPMENT LENGTH OF REBAR
ACA	ADHESIVE CONCRETE ANCHORS	DWG	DRAWING	δdc	COMPRESSION DEVELOPMENT LENGTH OF REBAR
ADDL	ADDITIONAL	DWL	DOWEL	δdh	TENSION EMBEDMENT LENGTH WITH STANDARD HOOK
AEC	ARCHITECTURALLY EXPOSED CONCRETE	EA	EACH	LE	LEFT END
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	ECR	EPOXY COATED REINFORCEMENT	LG	LONG
AIFB	ASPHALT IMPREGATED FIBERBOARD	EBF	ECCENTRICALLY BRACED FRAME	LL	LOWER LEVEL
ALT	ALTERNATE	EE	EACH END	LLH	LONG LEG HORIZONTAL
AMA	ADHESIVE MASONRY ANCHORS	EF	EACH FACE	LLV	LONG LEG VERTICAL
ARCH	ARCHITECTURAL	EJ, EXP JT	EXPANSION JOINT	LONG	LONGITUDINAL
A-ROD	ANCHOR ROD	ELECT	ELECTRICAL	LSH	LONG SIDE HORIZONTAL
ASPH	ASPHALT	EL	ELEVATION	LP	LOW POINT
AVG	AVERAGE	ELEV	ELEVATOR	LWT	LIGHT WEIGHT
B, BOT	BOTTOM	EMBED	EMBEDMENT	MAX	MAXIMUM
BOF	BOTTOM OF FOOTING	ENG	ENGINEER	MC	MOMENT CONNECTION (→ ←)
BOP	BOTTOM OF PILE	EOD	EDGE OF DECK	MECH	MECHANICAL
BCE	BOTTOM CHORD EXTENSION	EOS	EDGE OF SLAB	MEZZ	MEZZANINE
BCP	BORED CONCRETE PILE	ES	EACH SIDE	MF	MOMENT FRAME
BEW	BOTTOM EACH WAY	EQ	EQUAL	MIN	MINIMUM
BLL	BOTTOM LOWER LAYER	EW	EACH WAY	MISC	MISCELLANEOUS
BP	BASE PLATE	EX, EXIST	EXISTING	MJ	MOVEMENT JOINT
BRG	BEARING	EXT	EXTERIOR	ML	MIDDLE LAYER
BRP	BEARING PLATE	FC	FUTURE COLUMN	NF	NEAR FACE
BSMT	BASEMENT	FD	FLOOR DRAIN	NIC	NOT IN CONTRACT
BUL	BOTTOM UPPER LAYER	FF	FAR FACE	NOM	NOMINAL
BUP	BOTTOM OF UNDERPINNING	FIN	FINISHED	NTS	NOT TO SCALE
C	CAMBER	FL	FLOOR	O/C	ON CENTER
CA	COLUMN ABOVE ONLY (NO COLUMN BELOW)	FMC	FULL MOMENT CONNECTION (FOR FULL MOMENT CAPACITY)	OD	OUTSIDE DIAMETER
CANT	CANTILEVER	FND	FOUNDATION	OF	OUTSIDE FACE
CAT	CATEGORY (FOR AESS)	FTG	FOOTING	OPP	OPOSITE
CB	COLUMN BELOW ONLY (NO COLUMN ABOVE)	GA	GAUGE	OWSJ	OPEN WEB STEEL JOIST
CDL	COMPRESSION DEVELOPMENT LENGTH	GALV	GALVANIZED	PAF	POWDER ACTUATED FASTENERS
CEL	CUT OFF ELEVATION FOR PILES	GB	GRADE BEAM	PC	PILE CAP
CIP	CAST-IN PLACE	GEN	GENERAL	PL	PLATE
CJ	CONTROL JOINT	GL	GRIDLINE	PROJ	PROJECT, PROJECTION
CLR	CLEAR	GRD	GROUND	PS	PIPE SUPPORT
CL	CENTRELINE	h	TOTAL THICKNESS, SLAB THICKNESS AWAY FROM DROP PANEL	PT	POST TENSIONED
CMU	CONCRETE MASONRY UNITS	hd	SLAB OVERALL THICKNESS AT DROP PANEL	PTL	PRESSURE TREATED LUMBER
CNT	STEEL DECK CORE NOMINAL THICKNESS	H, HORIZ	HORIZONTAL	R	RADIUS
COMP	COMPOSITE	(H)	HIGH BEAM	RA	ROOF ANCHOR
COL	COLUMN	HC	HOLLOWCORE	RD	ROOF DRAIN
CONC	CONCRETE	HD	HOLD DOWN	RE	RIGHT END
CONT	CONTINUOUS	HDG	HOT DIPPED GALVANIZED	REINF	REINFORCEMENT
CONT'D	CONTINUED	HEF	HORIZONTAL EACH FACE	REM	REMAINDER
CONST J.	CONSTRUCTION JOINT	HIF	HORIZONTAL INSIDE FACE	REQD	REQUIRED
CP	CONNECTION PLATE	HH	HOOK EACH END	REV	REVISION
CPL	CAP PLATE	HIC	HORIZONTAL IN CENTRE	RF	RIGID FRAME
CS	COMPRESSION LAP SPLICE	HOF	HORIZONTAL OUTSIDE FACE	RL	REFERENCE LINE
COV	CLEAR COVER	HP	HIGH POINT	RSS	RETAINED SOIL SYSTEM
CW	COMPLETE WITH, CONNECT WITH	HSC	HORIZONTAL SLOTTED CONNECTION	RTU	ROOF TOP UNIT
CWS	(SEE TO GENERAL NOTES)	IBI	INTEGRITY BARS INTERIOR	RET. WALL	RETAINING WALL
CLS	(SEE TO GENERAL NOTES)	IBE	INTEGRITY BARS EXTERIOR	RW	REINFORCE WITH
DCA	DRILLED CONCRETE ANCHOR, SEE GENERAL NOTES	IBA	INTEGRITY BARS ADDED	r.w.	REQUIRED WITH
DEMO	DEMOLITION	IBB	INTEGRITY BOTTOM BARS (THROUGHOUT)	SDF	STEP DOWN FOOTING (IN DIRECTION OF ARROW)
DET	DETAIL	ID	INSIDE DIAMETER	SEC	SECTION
D.FIR-L	DOUGLAS FIR-LARCH	INT	INTERIOR	SIM	SIMILAR
DIA, Ø	DIAMETER	IF	INSIDE FACE	SJ	STEEL JOIST
DIV	DIVIDER BEAM	JG	JOIST GIRD	SL	SLAB SHELF ANGLE
DMA	DRILLED MASONRY ANCHOR, SEE GENERAL NOTES	KB	KNEE BRACING	SLBB	SHORT LEG BACK TO BACK
DN	DOWN	(L)	LOW BEAM	SLS	SERVICEABILITY LIMIT STATE
DNW	DOUBLE NUT AND WASHER	2-L	BACK TO BACK ANGLES	SOG	SLAB-ON-GRADE
				SPEC	SPECIFICATIONS
				SPF	SPRUCE PINE FIR
				SR	STUD RAIL
				SS	STAINLESS STEEL
				ST	STRAIGHT
				STD	STANDARD
				STE	SHEAR TRANSFER ELEMENTS
				STG	STAGGERED
				STIRUP	STIRRUP
				STIFF	STIFFENER
				STL	STEEL
				STR	SEISMIC STRAP
				STRUCT	STRUCTURAL
				SWT	SELF WEIGHT
				SYMM	SYMMETRICAL
				t	THICKNESS
				TB	TRANSFER BEAM
				TBB	TOP BASIC BARS
				T	TOP
				TDL	TENSION DEVELOPMENT LENGTH
				TEW	TOP EACH WAY
				T&G	TONGUE AND GROOVE
				TJ	TIE JOIST
				TLL	TOP LOWER LAYER
				T/O	TOP OF
				TGB	TOP OF (GRADE) BEAM
				TOC	TOP OF CONCRETE
				TOF	TOP OF FOOTING
				TOS	TOP OF STEEL
				TOP	TOP OF PILE
				TOW	TOP OF WALL
				TPC	TOP OF PILE CAP
				TRANS	TRANSVERSE
				TSA	TENSION SPLICE 'A'
				TSB	TENSION SPLICE 'B'
				TUL	TOP UPPER LAYER
				TYP	TYPICAL
				U-BAR	'U' SHAPED BAR
				UDB	UNIFORMLY DISTRIBUTED BARS
				U/F	UNDERSIDE OF FOOTING
				UL	UPPER LEVEL
				ULS	ULTIMATE LIMIT STATE
				U/S	UNDERSIDE
				UIN, UNO	UNLESS NOTED OTHERWISE
				UPT	UPTURNED
				V, VERT	VERTICAL VERTICALS
				VB	VERTICAL BRACING
				VEF	VERTICAL EACH FACE
				VIF	VERTICAL INSIDE FACE
				VIC	VERTICAL IN CENTRE
				VOF	VERTICAL OUTSIDE FACE
				VSC	VERTICALLY SLOTTED CONNECTION
				WB	WALL BELOW
				WC	WIND COLUMN
				w/o	WITHOUT
				WP	WORK POINT
				WSP-S	WSP STRUCTURAL
				WWF	WELDED WIRE FABRIC
				ZRP	ZINC RICH PAINT
				Yc	CONCRETE DENSITY

LOADING ABBREVIATIONS		TG-ABBR-02	
At	FACTORED AXIAL LOAD IN kN (+ INDICATES TENSION, - INDICATES COMPRESSION)		
Ct	FACTORED COMPRESSION IN kN		
fc	COMPRESSIVE STRENGTH OF CONCRETE, IN MPa		
fy	YIELD STRENGTH IN MPa		
Mt	FACTORED MOMENT IN kN.m		
Mtx	FACTORED MOMENT ABOUT X-X (STRONG) AXES IN kN.m		
Mty	FACTORED MOMENT ABOUT Y-Y (WEAK) AXES IN kN.m		
MPL	MASONRY PARTITION LOAD IN kN/m		
MTt	FACTORED TORSION IN kN.m		
Rt	FACTORED VERTICAL REACTION IN kN		
RHt	FACTORED HORIZONTAL REACTION IN kN		
P	SPECIFIED (UNFACTORED) POINT LOAD IN kN		
PI	FACTORED POINT LOAD IN kN		
Vt	FACTORED SHEAR IN kN		
Tt	FACTORED TENSION IN kN		

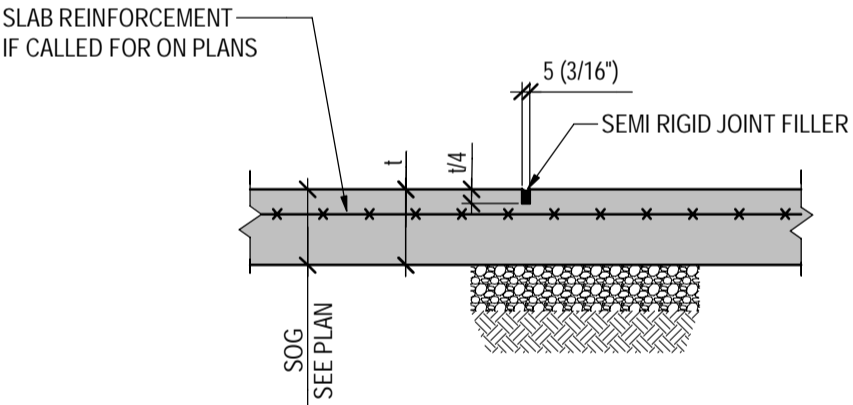
SLOPE BETWEEN ADJACENT EXCAVATIONS		TC-FDN-41	
			

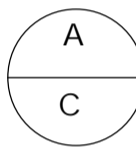
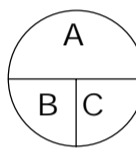
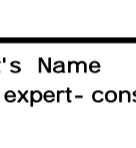
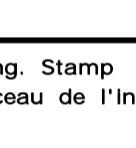






PIPES AT STRIP FOOTINGS		TC-FDN-51 (MODIFIED)

CONSTRUCTION JOINT IN WALL		TC-WALL-21
 <p>CONTINUOUS PVC WATERSTOP IN BASEMENT WALLS, RETAINING WALLS AND IN OTHER WALLS INDICATED ON DRAWINGS OR IN SPECIFICATIONS. ALTERNATIVE: SWELLABLE WATERSTOP IF 1 ≥ 225 (9")</p> <p>CONT STD KEY</p> <p>20 (3/4") DEEP REGLET FOR CAULKING ON FACE(S) EXPOSED TO VIEW</p> <p>HORIZONTAL REINFORCEMENT CONT THROUGH JOINT (OR SPLICED WITH CLASS B LAP)</p>		
<p>NOTE: DO NOT PLACE CONSTRUCTION JOINTS IN ANY SHEAR WALLS.</p>		

HOUSEKEEPING PADS / BUILT UP SLABS		TC-MISC-01 (MODIFIED)	
			
NOTES:			
<ol style="list-style-type: none">1. FOR PAD SIZES AND LOCATIONS, SEE MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS.2. FOR PADS MORE THAN 200(8") THICK OBTAIN CONSULTANT'S APPROVAL PRIOR TO POURING.3. FOR BUILT UP SLABS LESS THAN 25 (1") THICK, SEE [TC-MISC-04]4. AT SLABS MINIMUM 125 (5") THICK DOWELS CAN BE POST INSTALLED AND EMBEDDED 100 (4") DEEP USING HILTI ADHESIVE SYSTEM.5. REINFORCING SHOWN IS THE MINIMUM REQUIREMENT; COORDINATE WITH SEISMIC RESTRAINT DESIGN AND INCREASE IF REQUIRED.6. UNLESS THE PAD ITSELF IS SUFFICIENT TO RESIST ALL THE LOAD IMPOSED TO IT BY SEISMIC RESTRAINT ELEMENTS WITHOUT RELYING ON BASE SLAB, EXTEND ALL THE ANCHORAGE INTO THE BASE SLAB AND NEGLECT THE PORTION OF THE ANCHORS WITHIN THE PAD.			

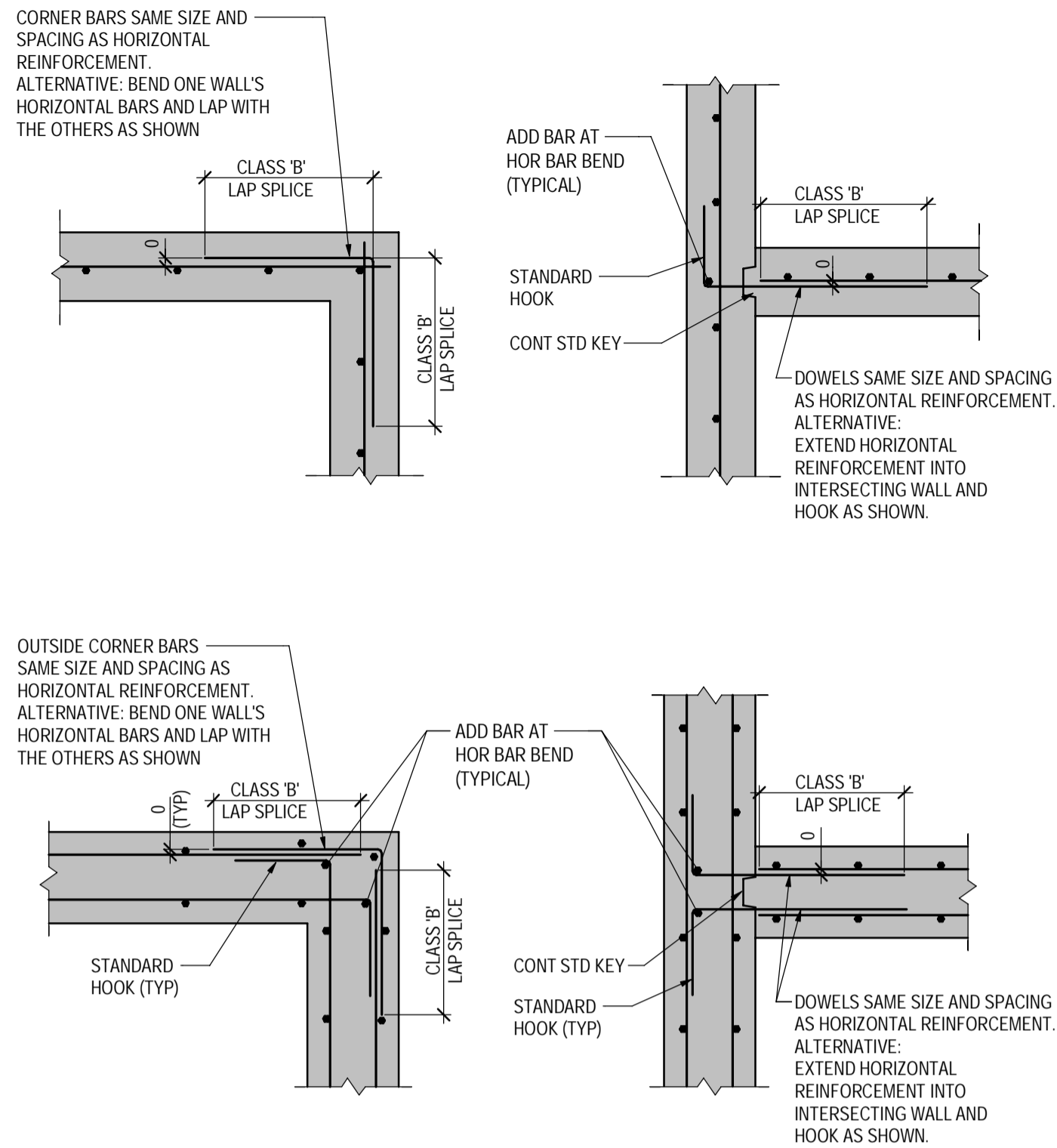
AUGUST 2017

SLAB ON GRADE SAWCUT CONTROL JOINT		TC-SOG-05	
			

LEGEND				
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9	2022.02.09	ISSUED FOR FINAL REVIEW	RDP	EML
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7	2021.11.03	ISSUED FOR PC REVIEW	RDP	EML
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3	2021.08.13	ISSUED FOR PC REVIEW	RDP	EML
2	2020.02.14	ISSUED FOR 65% REVIEW	RDP	EML
1	2019.08.20	ISSUED FOR REVIEW	RDP	EML
No.	Date/Date	Description/Description	Drawn by Dessine par	Approved Approuve
Revision / Revision				
		A detail number numero de detail		
		B source drawing no. de dessin no.		
		C detail on drawing no. detail sur dessin no.		
Consultant's Name Nom de l'expert- conseil			Eng. Stamp Sceau de l'Ingenieur	
			WSP Canada Inc 729 10 Street Suite 203 Camrose, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com	
		Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada	
		Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Equipe Alberta Meridional Branche d'Operations	
				
Client/client				
		Parks Canada Agency	L'Agence Parcs Canada	
		Western and Northern Region	Ouest et Nord du Canada	
Project title/Titre du projet				
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)				
BANFF NATIONAL PARK, ALABETA				
Drawing title/Titre du dessin				
TYPICAL DETAILS				
Surveyed by/Arpente par PARKS CANADA		Drawn by/Dessine par RDP	Date/Date 03AUG2022	
Designed by/Concept par KAV		Reviewed by/Revise par EML	Scale/Echelle NTS	
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN				
Client Acceptance/Acceptation du client		Approved by/Approuve par		
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC		
Project No./No. du projet 19M-01812-00		Asset No./No. du bien	Sheet No./ No. de la feuille	
Drawing Reference No./No. de reference du dessin			18	
S110			33	

CONCRETE WALL CORNERS AND INTERSECTIONS

TC-WALL-01



NOTES:

- IF WALLS ARE NOT PERPENDICULAR TO EACH OTHER, ALL BAR BENDS TO MATCH THE WALL INTERSECTION ANGLE.
- FOR SHEAR WALL CORNER AND INTERSECTION DETAILS, SEE [TC-WALL-41 TO TC-WALL-43]

JUNE 2017

COMPRESSION DEVELOPMENT LENGTHS AND LAP SPLICES FOR BARS GRADE 400 MPa

TC-REINF-02

COMPRESSION DEVELOPMENT LENGTH l_{dc} FOR GRADE 400 INDIVIDUAL BARS		
BAR SIZE	$f_c = 25$	$f_c = 30$ AND HIGHER
10	220 (9")	200 (8")
15	310 (12")	280 (11")
20	370 (15")	350 (14")
25	480 (19")	440 (17")
30	570 (23")	530 (21")
35	690 (27")	630 (25")
45	864 (34")	790 (31")
55	1070 (42")	970 (38")

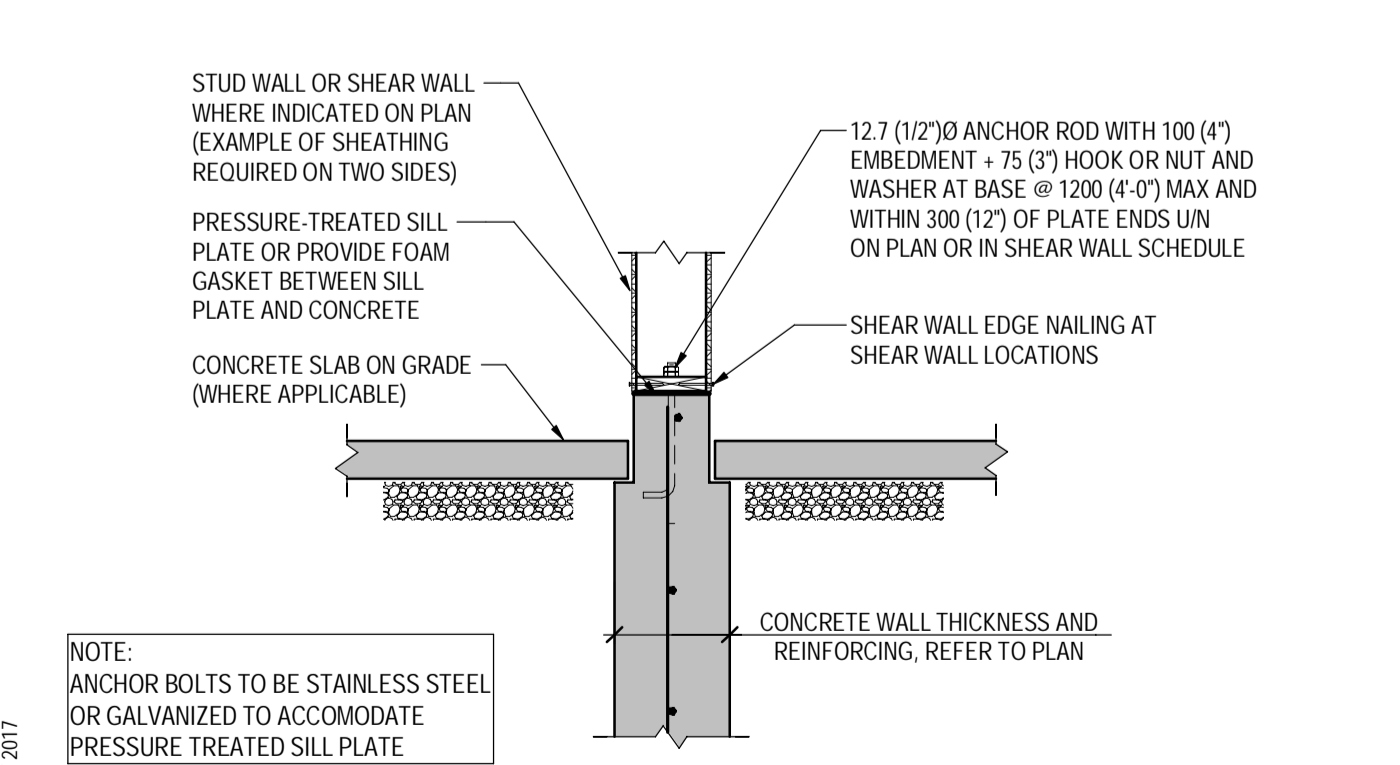
COMPRESSION LAP SPLICE FOR BAR 400 INDIVIDUAL BARS	
BAR SIZE	STANDARD LAP
10	300 (12")
15	440 (17")
20	590 (23")
25	730 (29")
30	880 (35")
35	1030 (41")

FOR BUNDLED BARS, MULTIPLY VALUES IN TABLE BY 1.1 FOR A TWO BAR BUNDLE, 1.2 FOR A THREE BAR BUNDLE AND 1.33 FOR A FOUR BAR BUNDLE

FEB 2020

SILL PLATE ANCHORAGE

TW-WALL-01 (MODIFIED)



MAY 2017

TENSION DEVELOPMENT LENGTHS AND LAP SPLICES FOR BARS GRADE 400 MPa

TC-REINF-01

TENSION DEVELOPMENT LENGTHS l_d FOR GRADE 400 INDIVIDUAL BLACK BAR IN NORMAL DENSITY CONCRETE												
BAR SIZE	$f_c = 25$		$f_c = 30$		$f_c = 35$		$f_c = 40$		$f_c = 50$		$f_c = 60$	
	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP
10	300 (12")	380 (15")	300 (12")	350 (14")	300 (12")	320 (13")	300 (12")	300 (12")	300 (12")	300 (12")	300 (12")	300 (12")
15	440 (17")	570 (23")	400 (16")	520 (21")	370 (14")	480 (19")	350 (14")	450 (18")	310 (12")	400 (16")	300 (12")	370 (14")
20	580 (23")	750 (30")	530 (21")	690 (27")	490 (19")	640 (25")	460 (18")	600 (24")	410 (16")	530 (21")	380 (15")	490 (19")
25	900 (36")	1170 (46")	830 (32")	1070 (42")	770 (30")	990 (39")	720 (28")	930 (37")	640 (25")	830 (33")	590 (23")	760 (30")
30	1080 (43")	1410 (55")	990 (39")	1290 (51")	920 (36")	1190 (47")	860 (34")	1110 (44")	770 (30")	1000 (39")	700 (28")	910 (36")
35	1260 (50")	1640 (65")	1160 (46")	1500 (60")	1070 (42")	1390 (55")	1000 (40")	1300 (52")	900 (35")	1160 (46")	820 (32")	1060 (42")
45	1620 (64")	2110 (83")	1480 (59")	1930 (76")	1370 (54")	1780 (71")	1290 (51")	1670 (66")	1150 (46")	1490 (59")	1050 (42")	1360 (54")
55	1980 (78")	2580 (102")	1810 (72")	2350 (93")	1680 (66")	2180 (86")	1570 (62")	2040 (81")	1410 (56")	1820 (72")	1280 (51")	1670 (66")

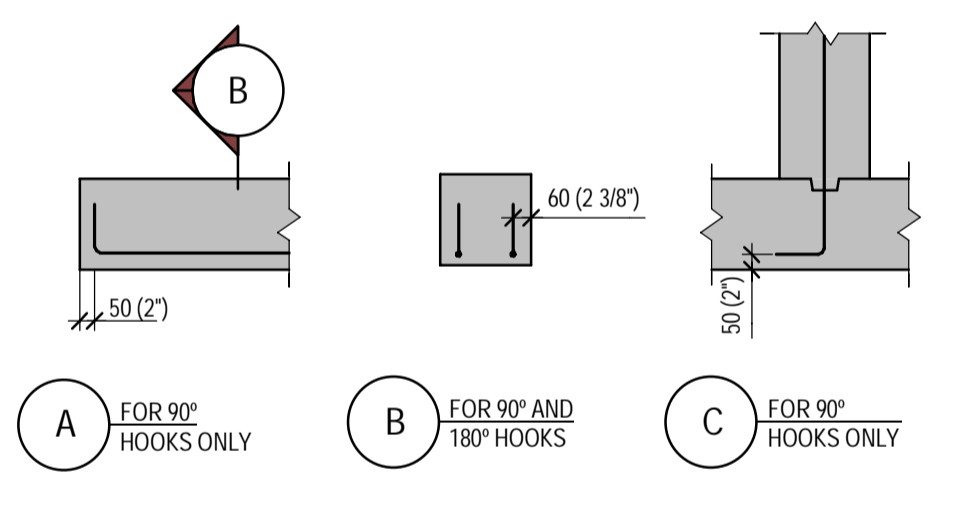
CLASS B TENSION LAP SPLICE LENGTHS FOR GRADE 400 INDIVIDUAL BLACK BAR IN NORMAL DENSITY CONCRETE												
BAR SIZE	$f_c = 25$		$f_c = 30$		$f_c = 35$		$f_c = 40$		$f_c = 50$		$f_c = 60$	
	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP
10	390 (16")	490 (19")	390 (16")	450 (18")	390 (16")	420 (17")	390 (16")	390 (16")	390 (16")	390 (16")	390 (16")	390 (16")
15	570 (23")	740 (29")	520 (21")	670 (27")	480 (19")	620 (25")	450 (18")	580 (23")	400 (16")	520 (20")	390 (16")	480 (19")
20	750 (29")	980 (39")	690 (27")	890 (35")	640 (25")	830 (33")	600 (24")	770 (30")	530 (21")	690 (27")	490 (19")	630 (25")
25	1170 (46")	1530 (61")	1070 (42")	1390 (55")	990 (39")	1290 (51")	930 (37")	1210 (48")	830 (33")	1080 (43")	760 (30")	990 (39")
30	1410 (56")	1830 (72")	1290 (51")	1670 (66")	1190 (47")	1550 (61")	1110 (44")	1450 (57")	1000 (39")	1300 (51")	910 (36")	1180 (46")
35	1640 (65")	2130 (84")	1500 (60")	1950 (77")	1390 (55")	1880 (72")	1300 (52")	1690 (67")	1160 (46")	1510 (59")	1060 (42")	1380 (54")

- FOR EPOXY BARS MULTIPLY VALUES IN TABLE BY 1.5 EXCEPT THAT A MULTIPLIER OF 1.2 CAN BE USED WHEN CLEAR COVER IS MORE THAN 3x BAR DIAMETER AND CLEAR SPACING BETWEEN BARS IS MORE THAN 6x BAR DIAMETER.
- FOR SEMI LOW DENSITY CONCRETE (1850- $\gamma_c \leq 2150$ kg/m³) MULTIPLY VALUES IN TABLE BY 1.2. FOR LOW DENSITY CONCRETE ($\gamma_c \leq 1850$ kg/m³) MULTIPLY VALUES IN TABLE BY 1.3.
- FOR BUNDLED BARS, MULTIPLY VALUES IN TABLE BY 1.1 FOR A TWO BAR BUNDLE, 1.2 FOR A THREE BAR BUNDLE AND 1.33 FOR A FOUR BAR BUNDLE
- "TOP" MEANS THAT THERE IS MORE THAN 300 (12") OF CONCRETE BELOW, AND LESS THAN 300 (12") OF CONCRETE ABOVE THE HORIZONTAL BAR WITHIN THE INDIVIDUAL CONCRETE POUR. ALL HORIZONTAL BARS IN WALLS TO BE CONSIDERED "TOP".
- ALL VERTICAL BARS ARE CONSIDERED "BOTTOM"

MINIMUM TENSION EMBEDMENT LENGTHS WITH STANDARD END HOOKS l_{dh} FOR GRADE 400 BAR IN NORMAL WEIGHT CONCRETE

BAR SIZE	$f_c = 25$	$f_c = 30$	$f_c = 35$	$f_c = 40$	$f_c = 50$	$f_c = 60$
10	150 (6")	150 (6")	150 (6")	150 (6")	150 (6")	150 (6")
15	210 (8")	200 (8")	180 (7")	170 (7")	150 (6")	150 (6")
20	280 (11")	260 (10")	240 (10")	230 (9")	190 (8")	190 (8")
25	350 (14")	320 (13")	300 (12")	280 (11")	240 (9")	230 (9")
30	420 (17")	390 (16")	360 (14")	340 (14")	290 (11")	280 (11")
35	490 (20")	450 (18")	420 (17")	390 (16")	340 (13")	320 (13")

- FOR EPOXY BARS MULTIPLY VALUES IN TABLE BY 1.2
- FOR LOW DENSITY CONCRETE ($\gamma_c \leq 1850$ kg/m³) MULTIPLY VALUES IN TABLE BY 1.3
- FOR HOOKS WITH COVER LESS THAN SHOWN IN DETAILS 'A', 'B' AND 'C' MULTIPLY VALUES IN TABLE BY 1.5

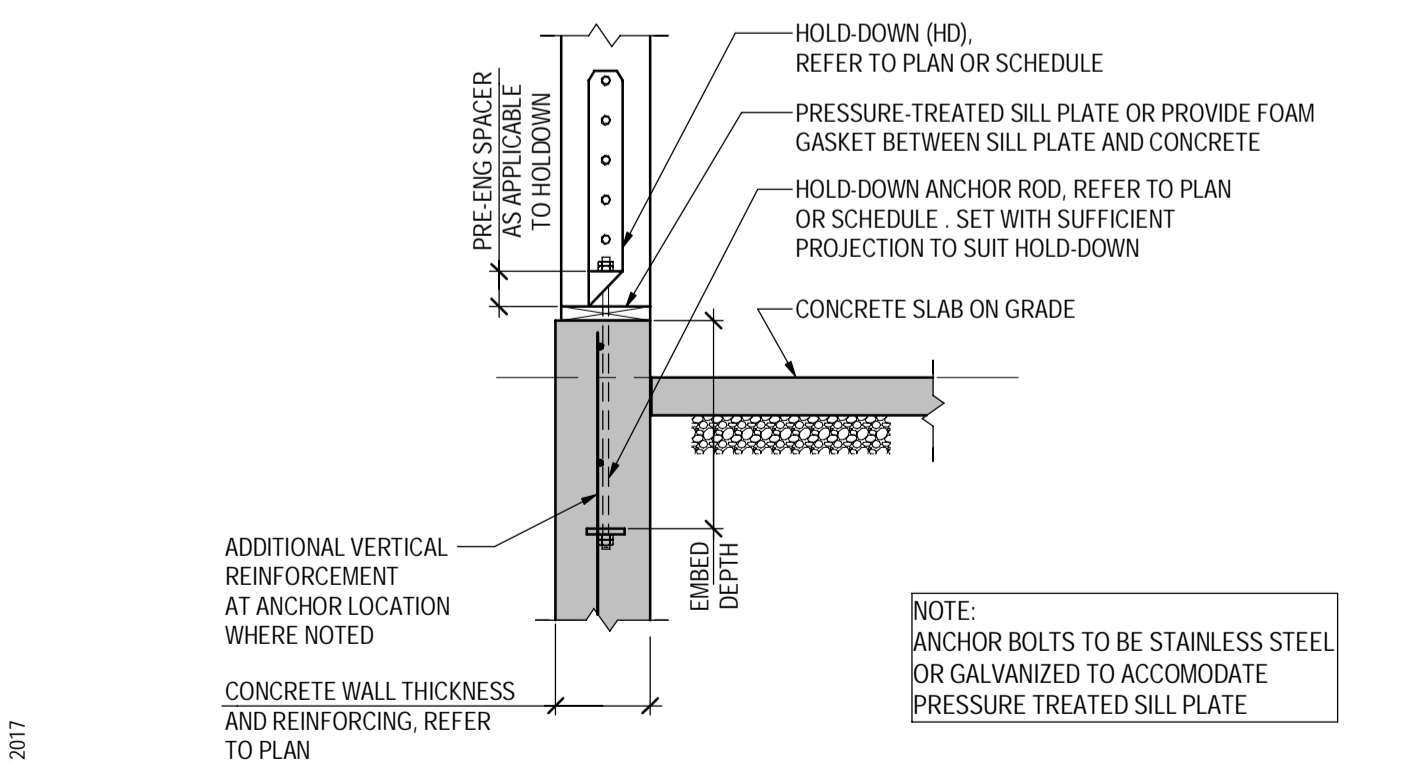


FOR VALUES NOT PROVIDED IN TABLES INTERPOLATE BETWEEN THE NEAREST VALUES PROVIDED.

JUNE 2017

SILL PLATE ANCHORAGE AT HOLD-DOWN

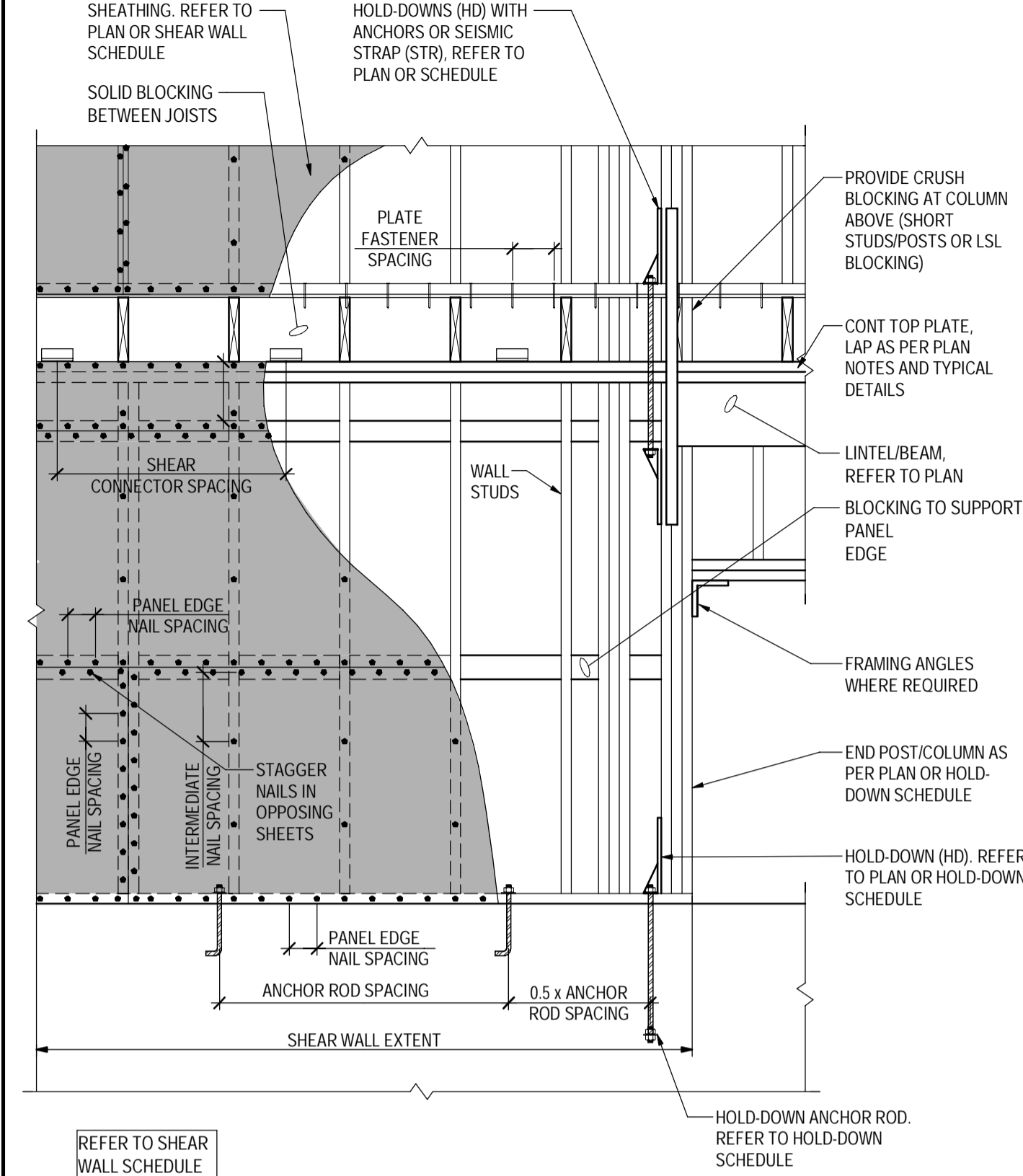
TW-WALL-02 (MODIFIED)



MAY 2017

SHEAR WALL ELEVATION WITH HOLD-DOWNS

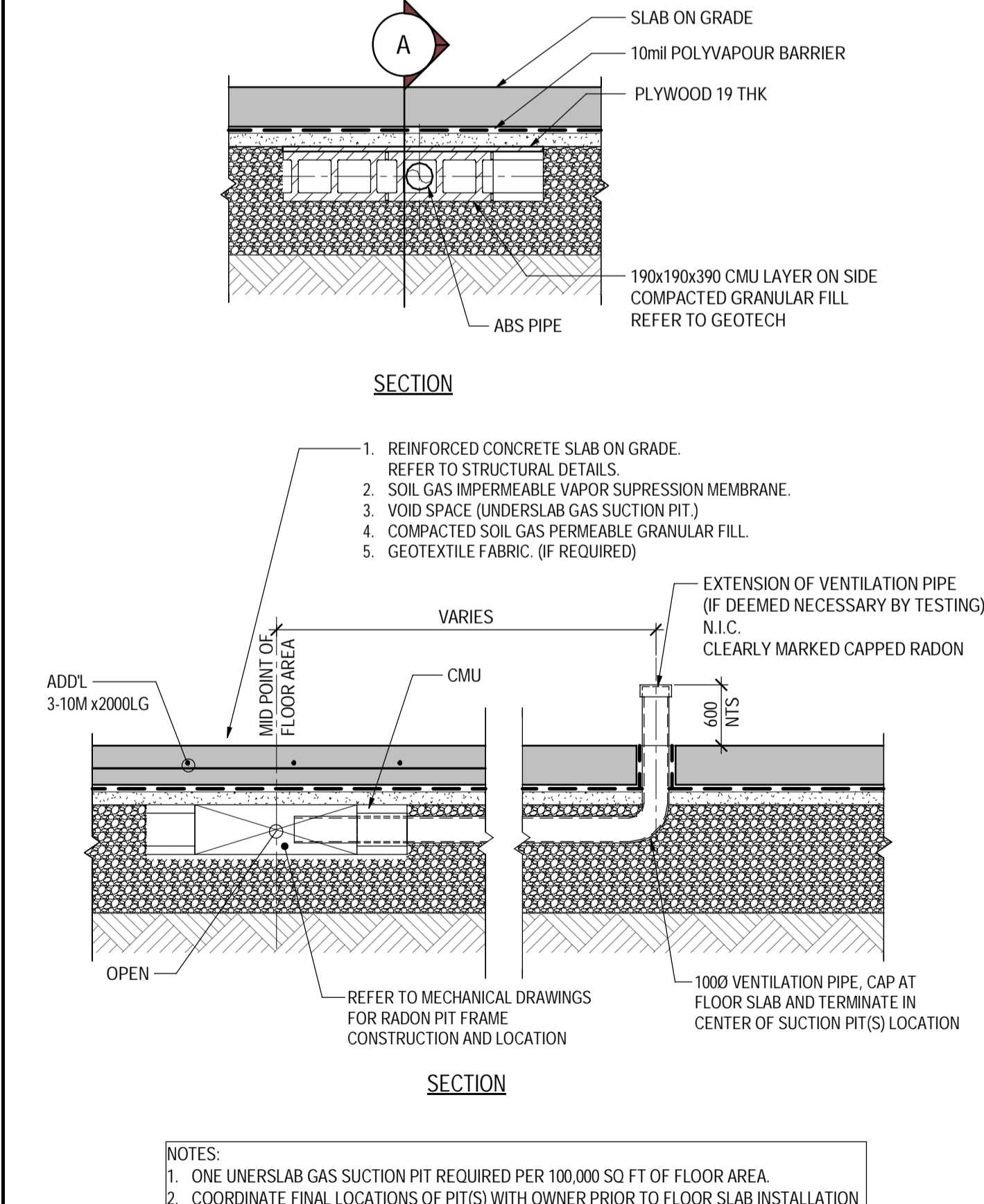
TW-WALL-21



MAY 2017

RADON PIT SECTION

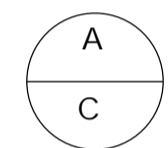
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LEGEND

No.	Date/Date	Description/Description	Drawn by Dessine par	Approved Approuve
10	2022.08.03	ISSUED FOR REVIEW	RDP	EML
9	2022.02.09	ISSUED FOR FINAL REVIEW	RDP	EML
8	2022.02.01	ISSUED FOR PC REVIEW	RDP	EML
7	2021.11.03	ISSUED FOR PC REVIEW	RDP	EML
6	2021.10.13	ISSUED FOR PC REVIEW	RDP	EML
5	2021.10.01	ISSUED FOR PC REVIEW	RDP	EML
4	2021.09.03	ISSUED FOR PC REVIEW	RDP	EML
3	2021.08.13	ISSUED FOR PC REVIEW	RDP	EML
2	2020.02.14	ISSUED FOR 65% REVIEW	RDP	EML
1	2019.08.20	ISSUED FOR REVIEW	RDP	EML

Revision / Revision



A detail number
numero de detail

B source drawing no.
de dessin no.

C detail on drawing no.
detail sur dessin no.

Consultant's Name
Nom de l'expert- conseil

Eng. Stamp
Sceau de l'ingenieur



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Client/client



Parks Canada
Agency

Western and
Northern Region

L'Agence Parcs
Canada

Ouest et Nord
du Canada

Project title/Titre du projet

CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALABETA

Drawing title/Titre du dessin

TYPICAL AND PROJECT
DETAILS

Surveyed by/Arpente par PARKS CANADA	Drawn by/Dessine par RDP	Date/Date 03AUG2022
Designed by/Concept par KAV	Reviewed by/Revise par EML	Scale/Echelle NTS

PWGSC Project Manager/Administrateur de Projets TPSGC

MATTHEW WHALEN

Client Acceptance/Acceptation du client

Approved by/Approuve par

Park Responsible Officer/Agent Responsable

PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet
19M-01812-00

Asset No./No. du bien

Sheet No./
No. de la feuille
19

Drawing Reference No./No. de reference du dessin

S111

33

TW-SWTRS-01



TW-FAST-01



TW-SWTRS-02
(MODIFIED)



TW-FAST-02

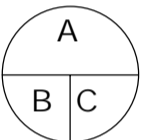


- NOTES:**
1. THIS DETAIL INDICATES MINIMUM FASTENING REQUIREMENTS FOR ALL DROPPED BEAMS AND LIGHTLY LOADED FLUSH BEAMS. PROVIDE FASTENING AS PER DETAIL, UNLESS NOTED OTHERWISE ON PLAN NOTES BEAM SCHEDULE, OR BY FLOOR/ROOF SYSTEM ENGINEER.
 2. SDW SCREWS BY SIMPSON STRONG-TIE OR APPROVED EQUIVALENT, LENGTH TO SUIT. NAILS MAY BE SUBSTITUTED FOR SCREWS SPACED AT 1/3S, U/I.
 3. MINIMUM OF 3 FASTENER GROUPS PER MEMBER.

TW-SWTRS-03



TW-WALL-11
(MODIFIED)

Revision / Revision

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Canada

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Ouest et Nord
du Canada

Project title/Titre du projet

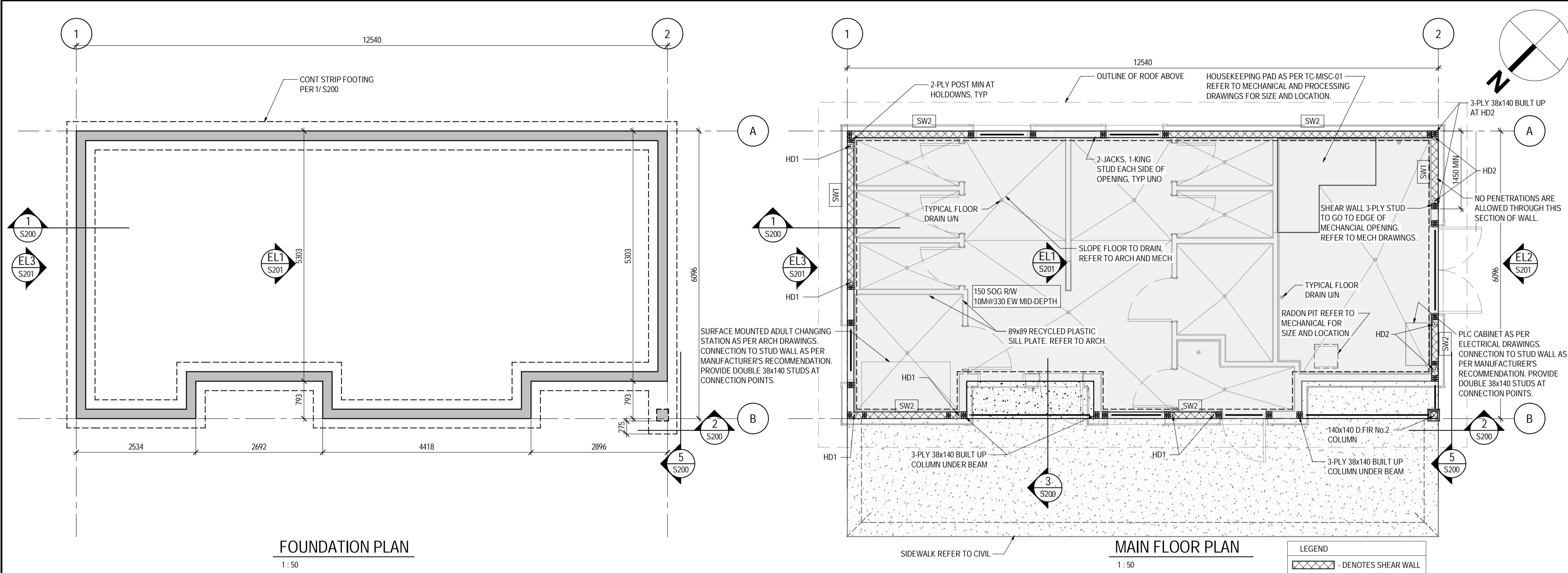
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALABETA

Drawing title/Titre du dessin

TYPICAL DETAILS

Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
--	---



FOUNDATION PLAN

1:50

MAIN FLOOR PLAN

1:50

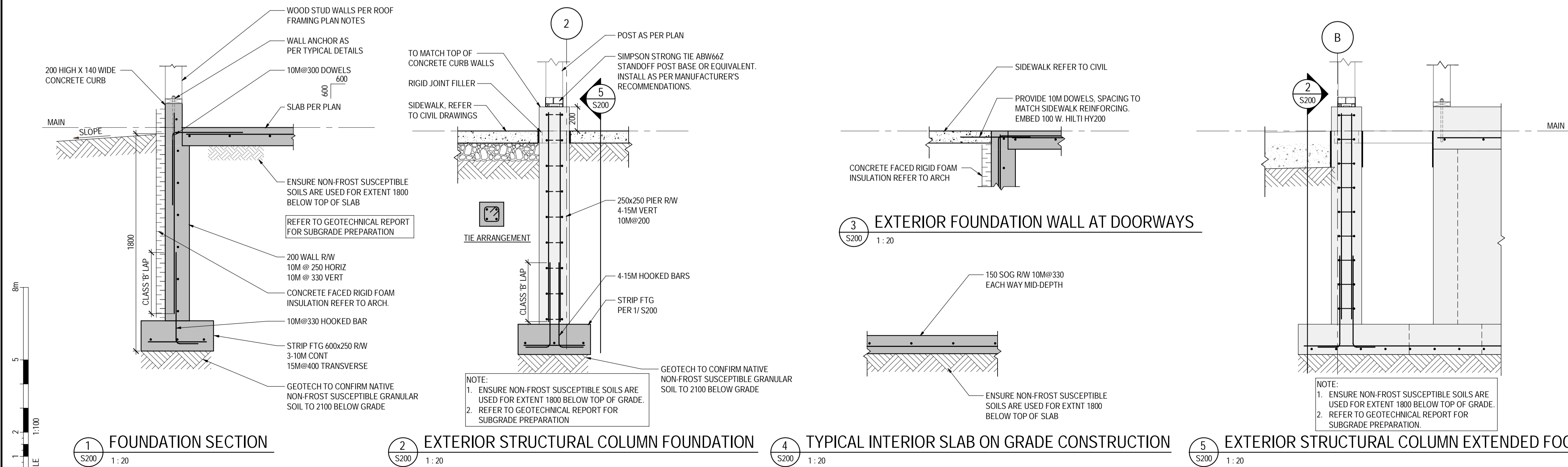
FOUNDATION AND MAIN FLOOR PLAN NOTES

- SEE GENERAL NOTES ON S100. SEE TYPICAL DETAILS ON S110 TO S112.
- UNLESS NOTED OTHERWISE ON PLAN, DESIGN LOADS ARE:
LIVE LOAD (LL) = 4.8 kN/m² MINIMUM
SUPERIMPOSED DEAD LOAD = 0.3 kN/m²
PARTITION LOAD IS INCLUDED IN THE LL
- TOP OF SOG IS ±0 FROM DATUM ELEVATION EXCEPT WHERE NOTED ON PLAN. REFER TO ARCHITECTURAL DRAWINGS FOR SLOPES FOR DRAINAGE WHICH ARE NOT NECESSARILY INDICATED ON STRUCTURAL DRAWINGS. MAINTAIN THE SLAB THICKNESS SPECIFIED.
- REFER TO CONCRETE NOTES AND TYPICAL DETAILS FOR CONSTRUCTION JOINT AND CONTROL JOINT REQUIREMENTS. COORDINATE JOINT LOCATIONS WITH ARCHITECT.
- REFER TO FOUNDATION SPECIFICATIONS FOR REQUIRED BEARING RESISTANCE OF PERIMETER STRIP FOOTING.
- MAIN FINISHED FLOOR ELEVATION = 1445.8
- *"SW" ON PLAN DENOTES WOOD SHEAR WALL. REFER TO TYPICAL DETAIL TW-WALL-21. PROVIDE 12.5 (1/2") CSP SHEATHING INSTALLED EITHER HORIZ OR VERT WITH JOINTS STAGGERED @ 1200 (4'-0"). USE 10d NAILS FOR PANEL NAILING, AND PROVIDE ANCHOR RODS AS PER TW-WALL-01, AT THE SPACINGS NOTED BELOW:
SW1: PANEL NAILING @ 100 (4") EDGE NAILING AND @ 300 (12") INTERIOR NAILING. PROVIDE MINIMUM 3 ANCHOR RODS AT EACH SHEAR WALL.

- SW2: PANEL NAILING @ 150 (6") EDGE NAILING AND @ 300 (12") INTERIOR NAILING. PROVIDE ANCHOR RODS AT 1200 (4'-0") MAX.
- "HD1" ON PLAN DENOTES SHEAR WALL HOLD-DOWN. PROVIDE HTTS WITH 26-10d FASTENERS WITH A 5/8" DIAMETER ANCHOR BOLT MIN 300 EMBEDMENT. REFER TO CONCRETE NOTES AND TYPICAL DETAILS FOR ANCHORAGE REQUIREMENTS.
- "HD2" ON PLAN DENOTES SHEAR WALL HOLD-DOWN. PROVIDE SIMPSON HDU8-SDS2.5 WITH 20 1/4" x 2-1/2" SDS HEAVY DUTY CONNECTOR SCREWS WITH A 1" DIAMETER ANCHOR BOLT MIN 400 EMBEDMENT. REFER TO CONCRETE NOTES AND TYPICAL DETAILS FOR ANCHORAGE REQUIREMENTS.
- PROVIDE SOLID BLOCKING BETWEEN TRUSSES AT SUPPORTS AND WHERE INDICATED ON SECTION DETAILS.
- WOOD STUD WALLS:

- PROVIDE 2x6 @ 400 (16") WALL STUDS TYPICAL. REFER TO ARCHITECTURAL DRAWINGS FOR ALL NON-LOAD BEARING WALLS AND REQUIREMENTS.
- PROVIDE 2-PLY TOP PLATE. CONNECT BUILD UP TOP PLATES TOGETHER WITH ONE ROW OF 75 (3") NAILS SPACED NOT MORE THAN 300 (12") APART. WHERE TOP PLATES ARE SPLICED, ALIGN JOINTS OVER WALL STUDS WITH MINIMUM 1200 BETWEEN UPPER AND LOWER PLATE SPLICES.

- UNLESS OTHERWISE NOTED ON PLAN OR IN SECTIONS, CONNECT WOOD STUD WALLS TO CONCRETE STRUCTURE BELOW AS PER TYPICAL DETAIL TW-WALL-01. ALTERNATIVELY, POST-INSTALLED ANCHORS WITH THE SAME DIAMETER AND SPACING MAY BE USED, SUBMIT FOR REVIEW. REFER TO SHEAR WALL SCHEDULE FOR ADDITIONAL ANCHORAGE AT SHEAR WALLS.
- FOR EXTERIOR WALLS THAT ARE NOT SHEAR WALLS, PROVIDE SHEATHING ON EXTERIOR SIDE. FASTEN TO SUPPORTING FRAME AS PER PART 9.
- FOR MECHANICAL OPENINGS LARGER THAN STUD SPACING, PROVIDE MIN 2-PLY 2x6 HEADER AND LINTEL & 2-PLY 2x6 KING STUDS.



LEGEND

No.	Date/Date	Description/Description	Drawn by Dessine par	Approved Approuve
10	2022.08.03	ISSUED FOR REVIEW	RDP	EML
9	2022.02.09	ISSUED FOR FINAL REVIEW	RDP	EML
8	2022.02.01	ISSUED FOR PC REVIEW	RDP	EML
7	2021.11.03	ISSUED FOR PC REVIEW	RDP	EML
6	2021.10.13	ISSUED FOR PC REVIEW	RDP	EML
5	2021.10.01	ISSUED FOR PC REVIEW	RDP	EML
4	2021.09.03	ISSUED FOR PC REVIEW	RDP	EML
3	2021.08.13	ISSUED FOR PC REVIEW	RDP	EML
2	2020.02.14	ISSUED FOR 65% REVIEW	RDP	EML
1	2019.08.20	ISSUED FOR REVIEW	RDP	EML

Revision / Revision	
A	detail number numero de detail
B	source drawing no. de dessin no.
C	detail on drawing no. detail sur dessin no.

Consultant's Name
Nom de l'expert- conseil

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Project title/Titre du projet

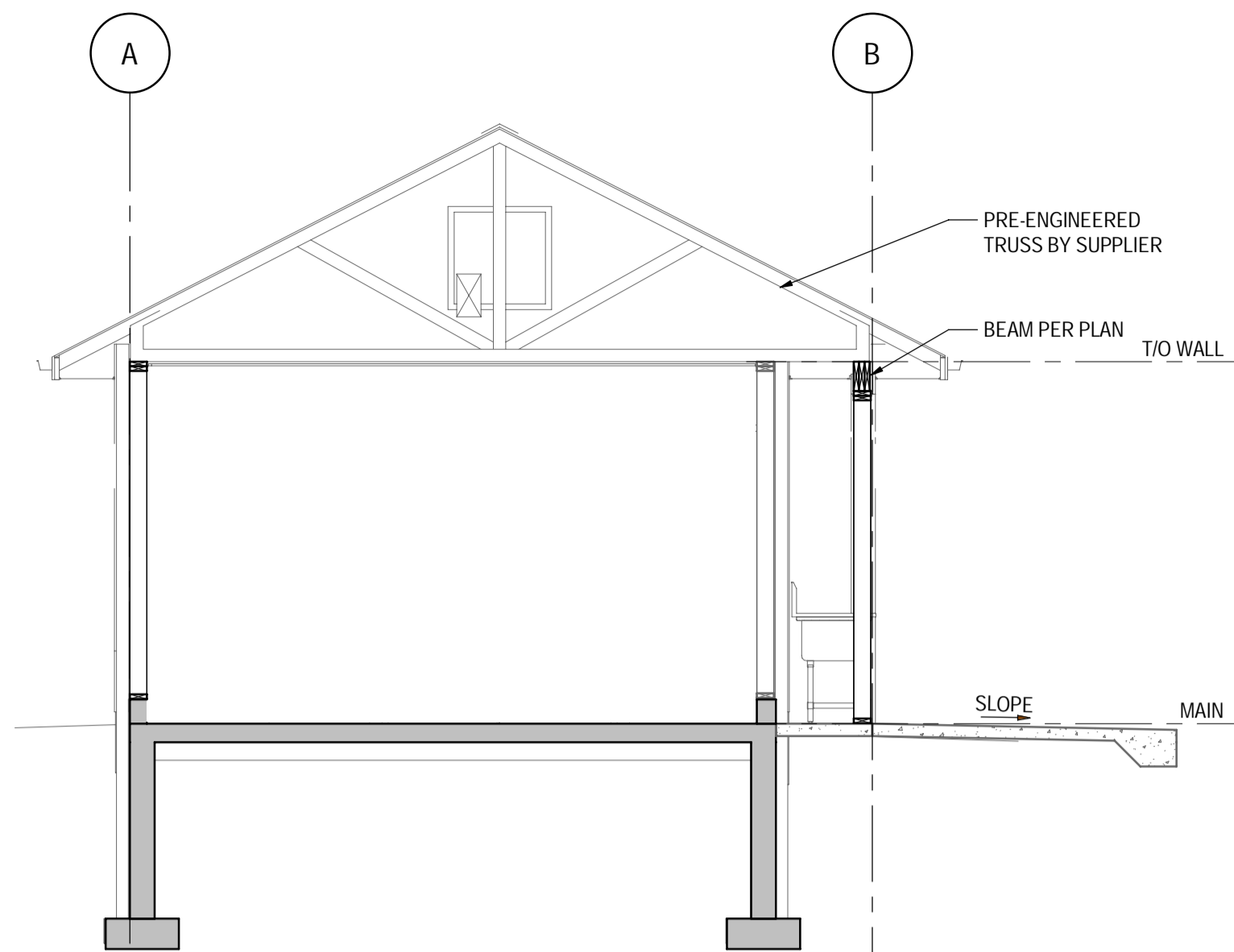
CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALABETA

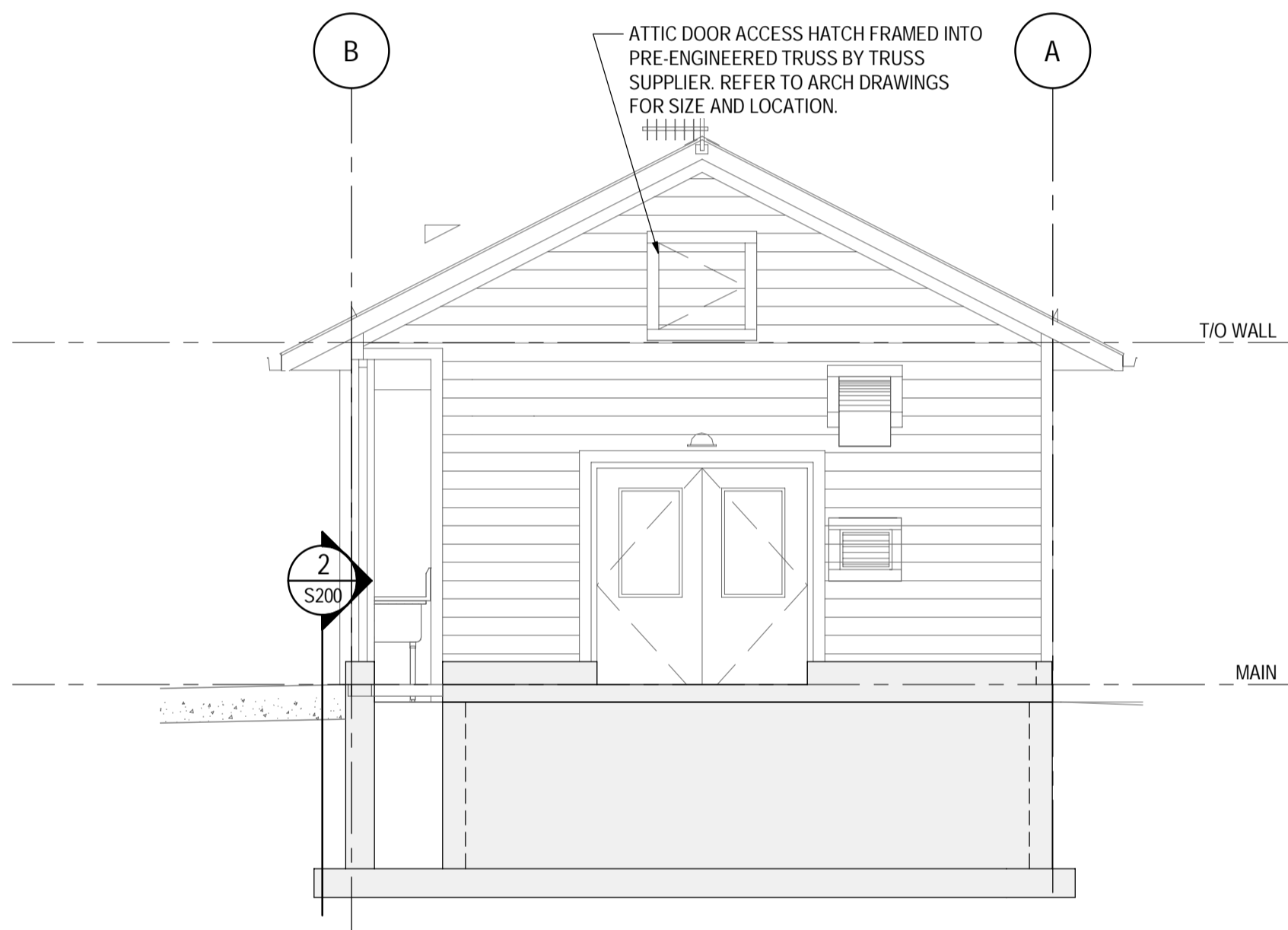
Drawing title/Titre du dessin

FOUNDATION, MAIN FLOOR
PLAN AND SECTIONS

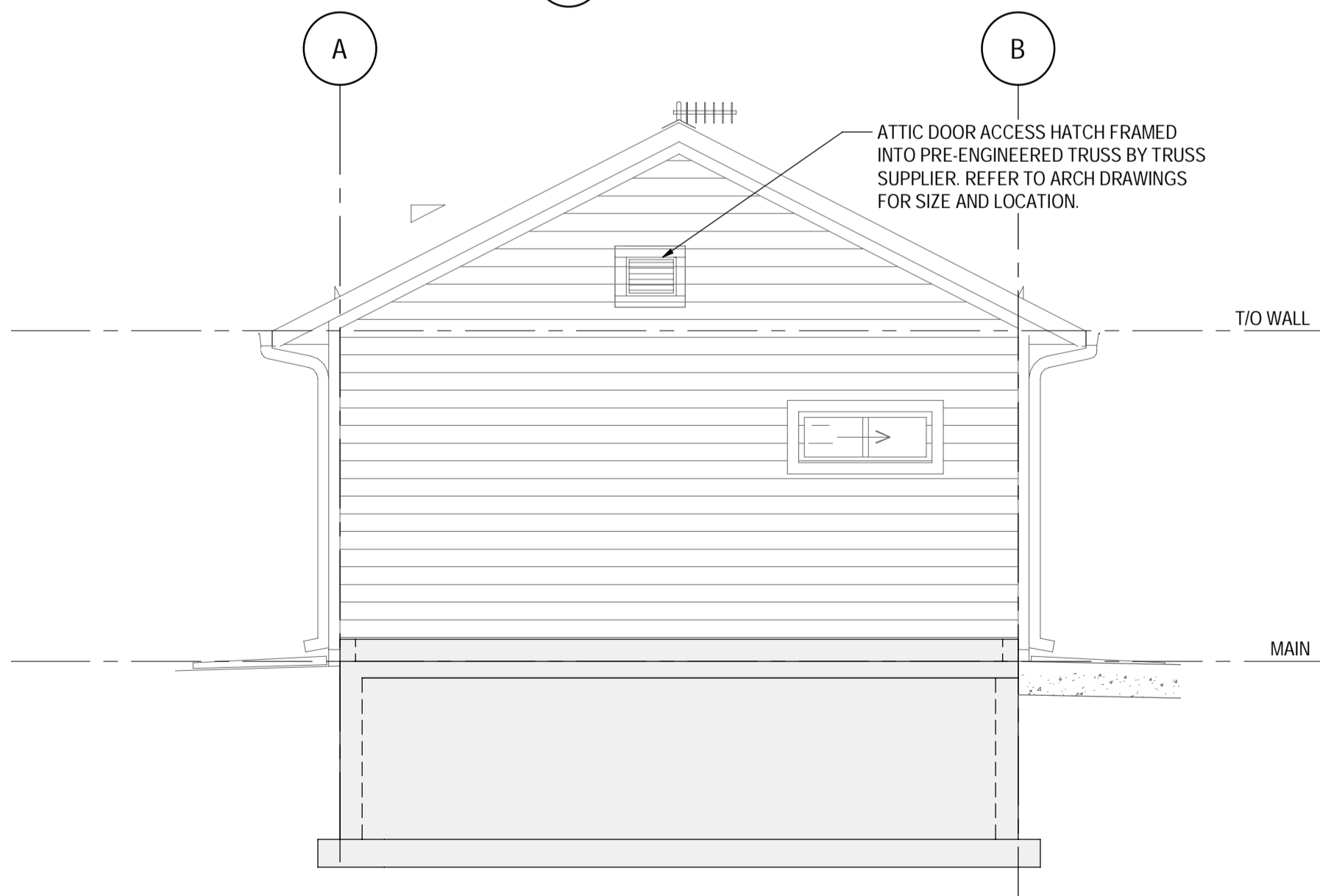
Surveyed by/Arpente par PARKS CANADA	Drawn by/Dessine par RDP	Date/Date 03AUG2022
Designed by/Concept par KAV	Reviewed by/Revise par EML	Scale/Echelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuve par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 19M- 01812- 00	Asset No./No. du bien	Sheet No./ No. de la feuille 21
Drawing Reference No./No. de reference du dessin S200		33



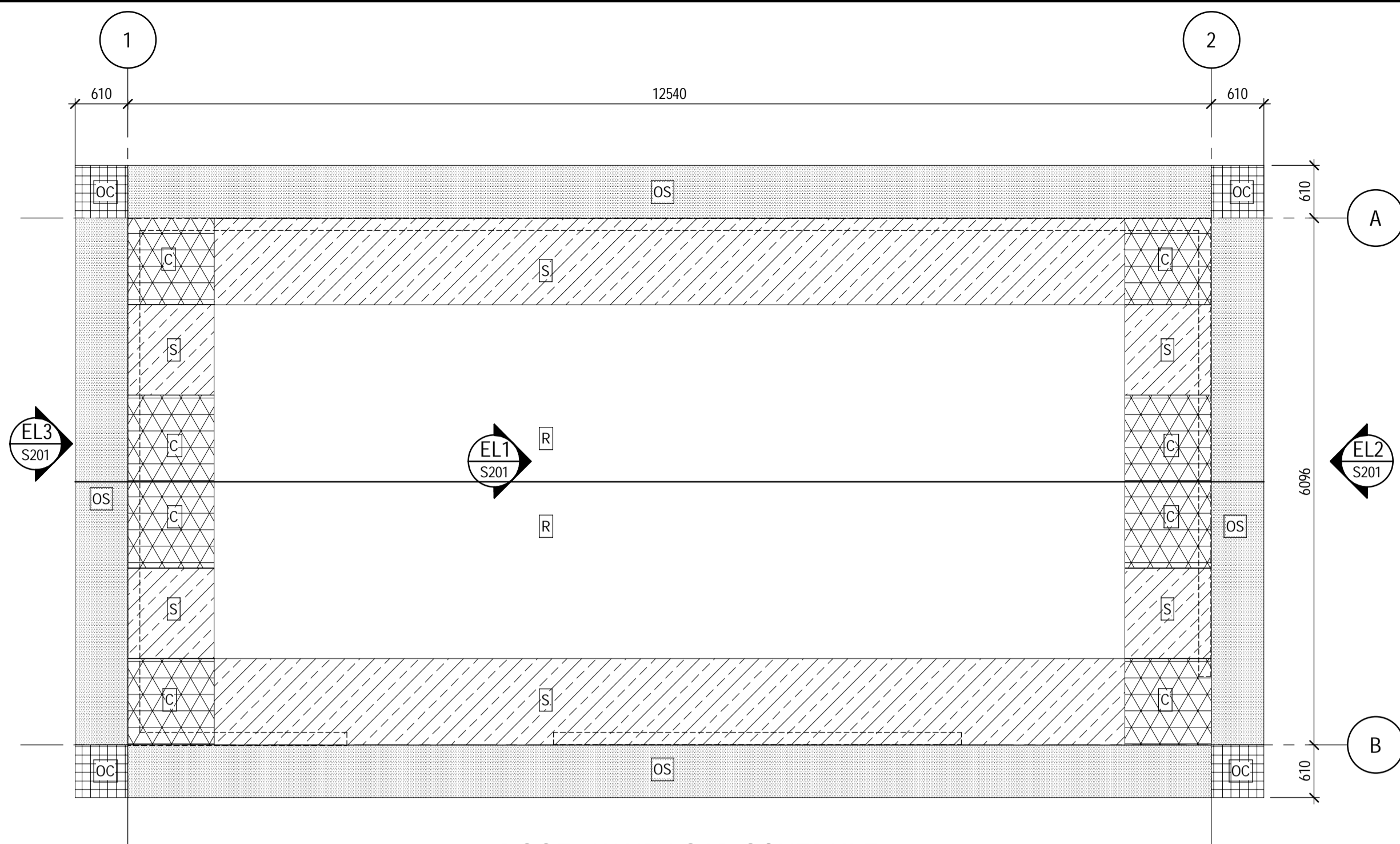
ELEVATION
1:50



ELEVATION
1:50



ELEVATION
1:50



ROOF - WIND LOAD SCHEDULE

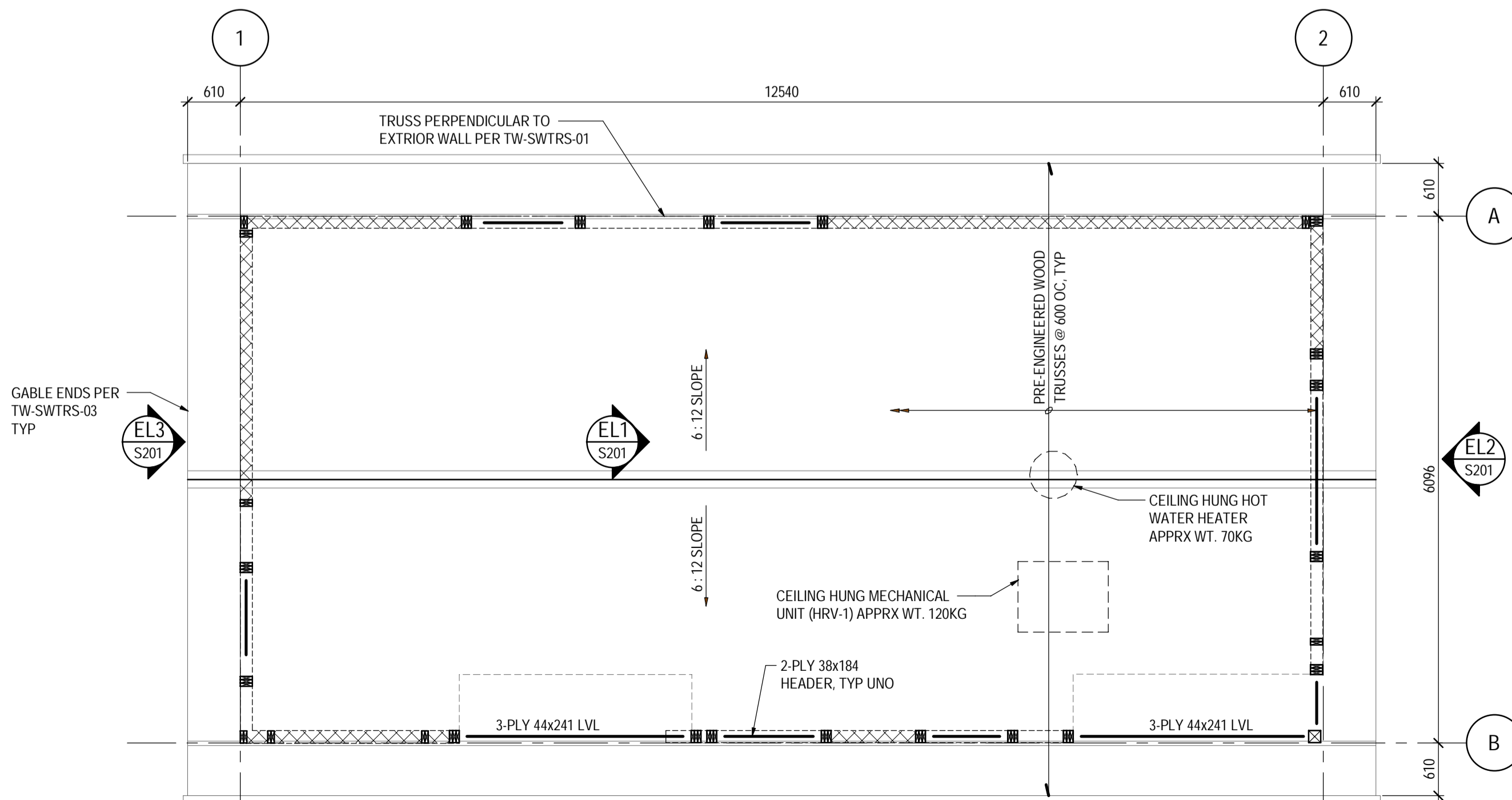
1:50

WIND LOAD SCHEDULE			
PATTERN	AREA	SUCTION	PRESSURE
	R	0.92	0.5
	S	1.25	0.5
	C	1.66	0.5
	OS	1.40	0.65
	OC	2.60	0.65

NOTES:
1. WIND LOADS SHOWN ARE UNFACTORED IN kPa. LOAD FACTORS SHALL BE USED IN ACCORDANCE WITH THE 2019 NBC (AE).
2. WIND LOADS APPLY TO STRUCTURAL COMPONENTS AND CLADDING.
3. REFER TO GENERAL NOTES DESIGN DATA FOR IMPORTANCE FACTOR RELATED TO WIND.

ROOF FRAMING PLAN NOTES

- SEE GENERAL NOTES ON S100. SEE TYPICAL DETAILS ON S110 TO S112.
- UNLESS NOTED OTHERWISE ON PLAN, DESIGN LOADS ARE:
LIVE LOAD (SNOW) = 4.5 kN/m² MINIMUM AND 1.9kN APPLIED ANYWHERE ALONG THE LENGTH OF THE TRUSS
SUPERIMPOSED DEAD LOAD = 0.76 kN/m²
SELF WEIGHT = 0.25 kN/m²
WIND LOAD = REFER TO WIND LOAD SCHEDULE
- TRIM SIDES OF OPENINGS IN SHEATHING WITH 2x8 TRIMMERS. COORDINATE OPENINGS WITH ARCHITUTURAL/MECHANICAL/ELECTRICAL DRAWINGS.
- PROVIDE SOLID BLOCKING BETWEEN TRUSSES AT SUPPORTS AND WHERE INDICATED ON SECTION DETAILS.
- PROVIDE 16 (5/8") TONGUE AND GROOVE PLYWOOD UNBLOCKED ROOF SHEATHING. GLUE AND NAIL TO SUPPORTING FRAMING WITH 64 (2 1/2") LONG NAILS @ 150 (6") CENTRES AT ALL PANEL EDGES AND @ 300 (6") CENTRES AT INTERMEDIATE SUPPORTS. SHEATHING TO BE ORIENTED WITH LONG DIMENSION PERPENDICULAR TO ROOF JOISTS.
- DESIGN ENGINEERED ROOF TRUSSES AND OTHER ENGINEERED ROOF FRAMING FOR SNOW ACCUMULATION AND/OR DRIFT LOAD PATTERNS IN ACCORDANCE WITH THE NATIONAL BUILDING CODE, OR AS NOTED ON PLAN, WHICHEVER IS MORE STRINGENT.
- PRE-ENGINEERED WOOD TRUSSES:
 - "GT" ON PLAN DENOTES GIRDER TRUSS.
 - DESIGN ROOF TRUSSES FOR LOADS INDICATED ABOVE, PLUS 1.3kN SPECIFIED POINT LOAD APPLIED ANYWHERE ALONG THEIR LENGTH, UNLESS NOTED OTHERWISE ON PLAN. MINIMUM BOTTOM CHORD LOADING IS AS FOLLOWS:
SDL = 0.5kPa + SWT
LL = 0.5 kPa (THIS IS IN ADDITION TO TOP CHORD LL INDICATED ABOVE)
 - DESIGN ROOF TRUSSES FOR A MAXIMUM TOTAL LOAD DEFLECTION OF = L/240, AND A MAXIMUM LIVE LOAD DEFLECTION = L/360.
 - "DRAG TRUSS" ON PLAN DENOTES WOOD TRUSS LOCATED ON OR IN-LINE WITH WOOD SHEAR WALL BELOW. REFER TO SECTIONS FOR CONNECTIONS AND DETAILS. DESIGN TRUSSES TO TRANSFER FACTORED AXIAL FORCE INDICATED ON PLAN FROM ROOF SHEATHING TO DOUBLE TOP PLATE ON WALL. PROVIDE TRUSS BLOCKING AS PER TYPICAL DETAILS.
 - TRUSS MANUFACTURER TO PROVIDE TRUSS PANEL BLOCKING ABOVE WALLS WHERE INDICATED ON PLAN. TRUSS BLOCKING TO BE DESIGNED TO TRANSFER FORCES NOTED ON PLAN FROM ROOF SHEATHING TO SHEAR WALL BELOW.



ROOF FRAMING PLAN

1:50

LEGEND

No.	Date/Date	Description/Description	Drawn by Dessine par	Approved Approuve
9	2022.06.16	ISSUED FOR PCA REVIEW	RDP	EML
8	2022.02.09	ISSUED FOR FINAL REVIEW	RDP	EML
7	2022.02.01	ISSUED FOR PC REVIEW	RDP	EML
6	2021.11.03	ISSUED FOR PC REVIEW	RDP	EML
5	2021.10.01	ISSUED FOR PC REVIEW	RDP	EML
4	2021.09.17	ISSUED FOR PC REVIEW	RDP	EML
3	2021.08.13	ISSUED FOR PC REVIEW	RDP	EML
2	2020.02.14	ISSUED FOR 65% REVIEW	RDP	EML
1	2019.08.20	ISSUED FOR REVIEW	RDP	EML

Revision / Revision	
A	detail number numero de detail
B	source drawing no. de dessin no.
C	detail on drawing no. detail sur dessin no.

Consultant's Name Nom de l'expert- conseil	Eng. Stamp Sceau de l'ingenieur
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Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Equipe Alberta Meridional Branche d'Operations



Client/client	Parks Canada Agence	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet	CASTLE MOUNTAIN CAMPGROUND (PHASE 2) BANFF NATIONAL PARK, ALABETA
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Drawing title/Titre du dessin	ROOF PLAN AND ROOF LOADING LEGEND
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Surveyed by/Arpente par PARKS CANADA	Drawn by/Dessine par RDP	Date/Date 03AUG2022
Designed by/Concept par KAV	Reviewed by/Revise par EML	Scale/Echelle AS SHOWN

PWGSC Project Manager/Administrateur de Projets TPSGC MATTHEW WHALEN	
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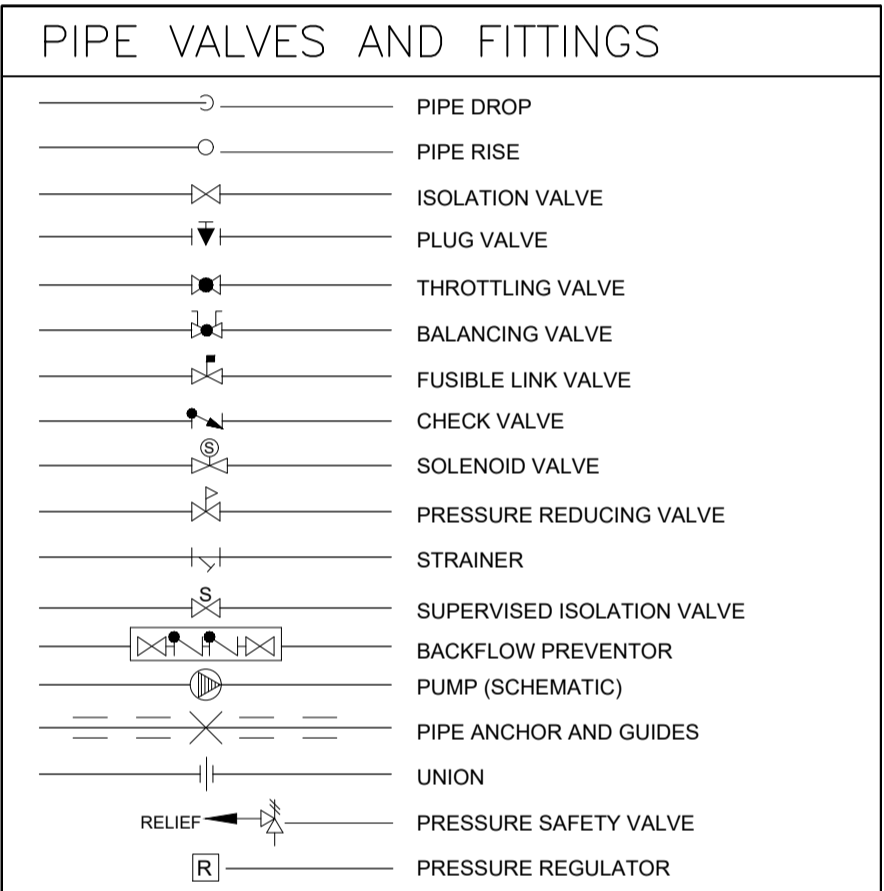
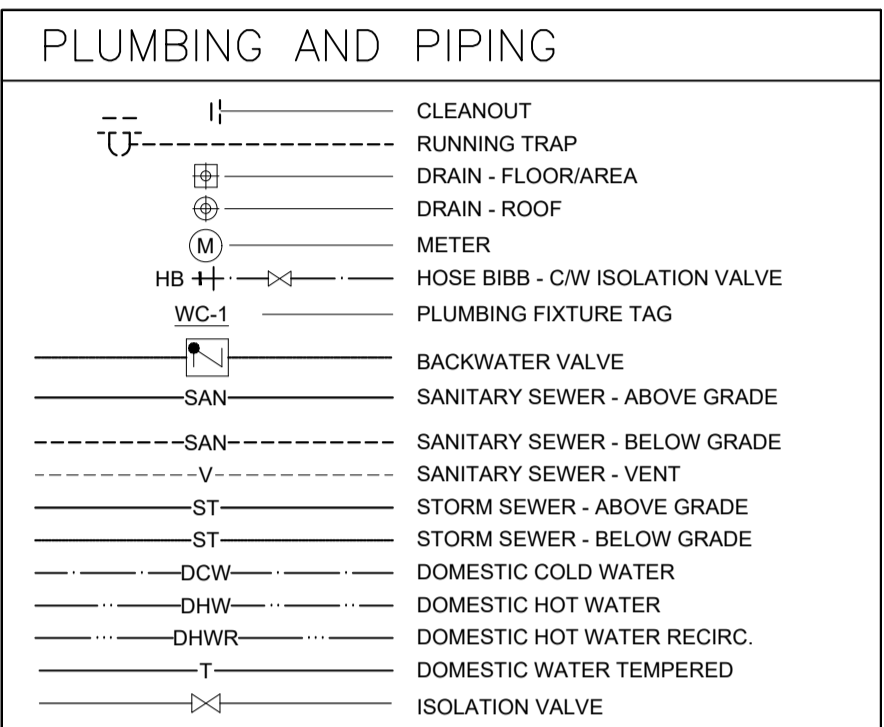
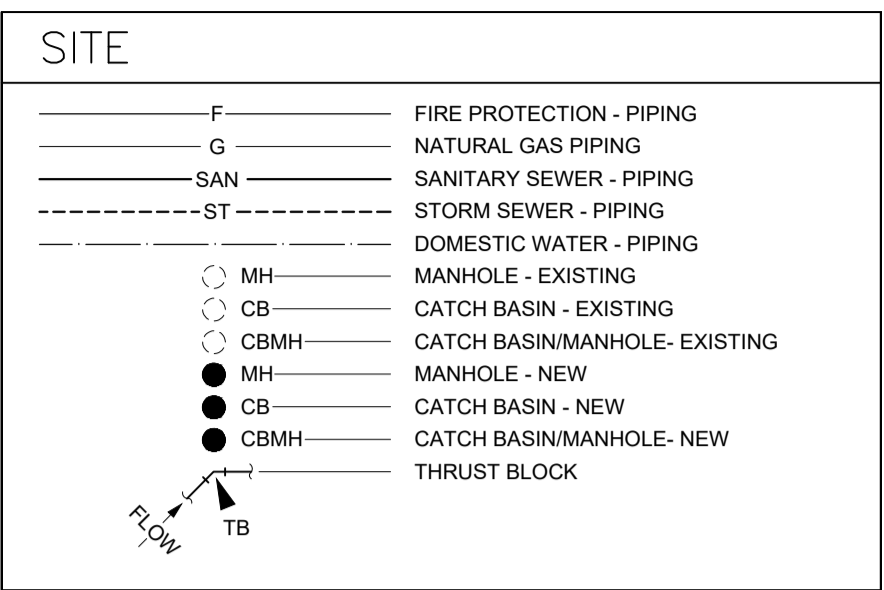
Client Acceptance/Acceptation du client	Approved by/Approuve par
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Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
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Project No./No. du projet 19M-01812-00	Asset No./No. du bien	Sheet No./ No. de la feuille 22
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Drawing Reference No./No. de reference du dessin S201	33
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MECHANICAL LEGEND



FAN SCHEDULE												
FAN No.	SERVICE	LOCATION	MANUFACTURER	MODEL No.	AIR FLOW CFM (L/s)	EXT. STATIC PRESS. IN.W.C. (kPa)	MOTOR HP	RPM	ELECTRICAL (V/Ph/Hz)	MOUNTING ARR'GT	TYPE	REMARKS
EF-1	MECH	MECH	GREENHECK	SE1-8-440-E	400 (189)	0.1 (25)	VG- 1/10	VAR.	120/1/60	WALL MOUNT	PROP EC MOTOR	c/w 45" WEATHER HOOD & BIRD SCREEN, FAN GUARD, WALL HOUSING, MOTORIZED DAMPER, VARI-GREEN MOTOR, SHORT WALL HOUSING.
RF-1	RADON	MECH	FANTECH	Rn1	170 (80)	-	20 W		120/1/60	INLINE	INLINE	RADON EXHAUST FAN c/w VIBRATION ISOLATION COUPLINGS

GRILLE & DIFFUSER SCHEDULE	
GRILLE TYPE	DESCRIPTION
SUPPLY AIR	
S-1	EH PRICE 510 DOUBLE DEFLECTION
RETURN AIR	
R-1	EH PRICE SDGER
EXHAUST AIR	
E-1	EH PRICE SDGER
LOUVER	
L-1	EH PRICE NSE1

NOTES:

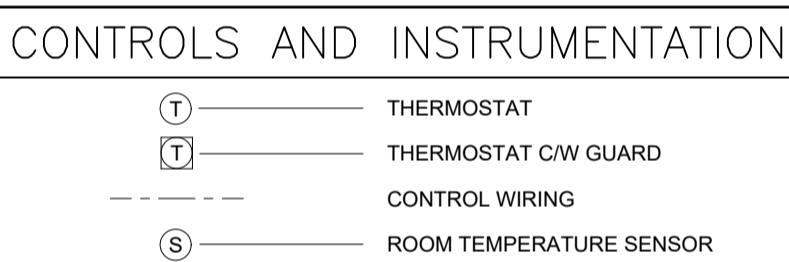
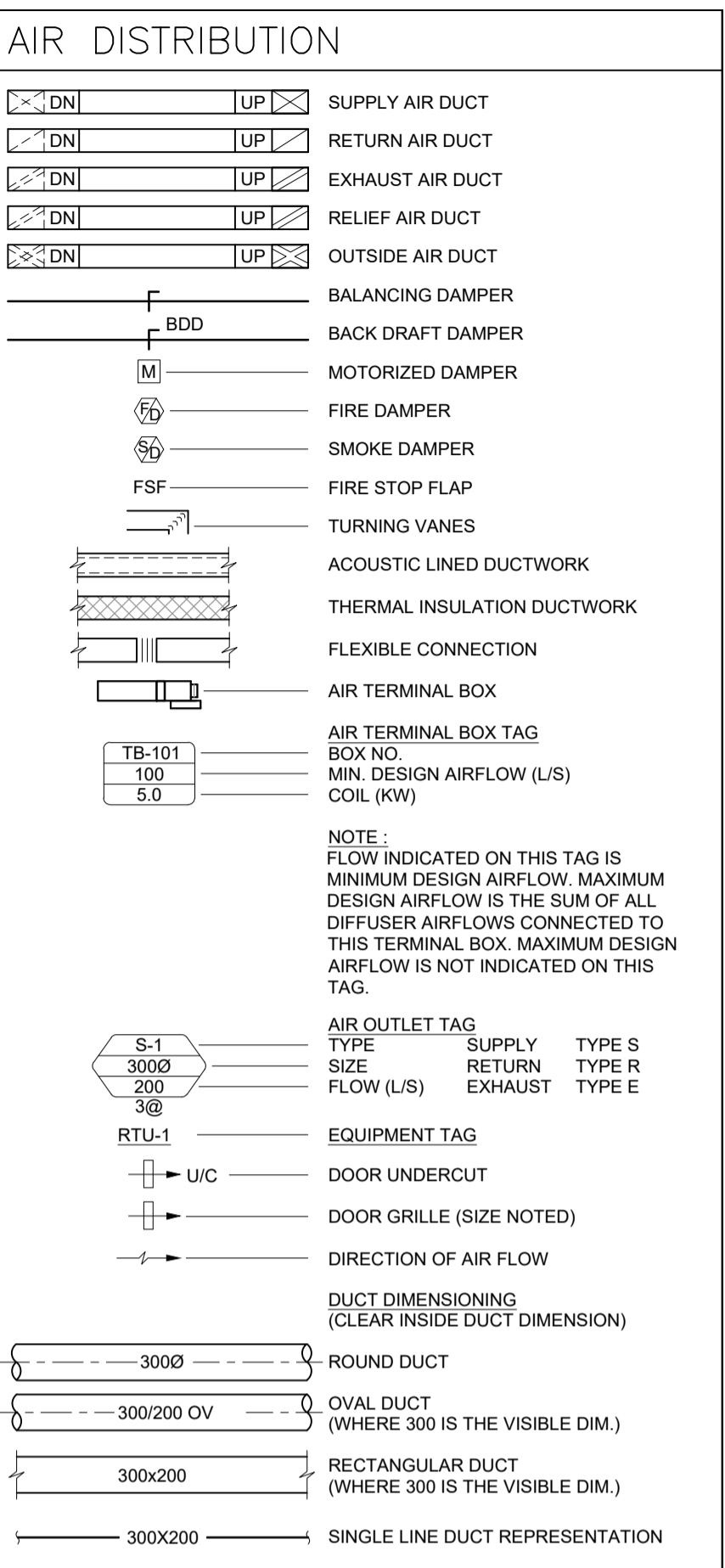
NOTE 1: COLOURS SHALL BE AS SELECTED BY THE ARCHITECT. CONFIRM COLOUR SELECTIONS PRIOR TO ORDERING.

NOTE 2: GRILLES, DIFFUSERS AND REGISTERS SHALL BE PROVIDED TO CONFORM TO ARCHITECTURAL AND STRUCTURAL DETAILING. CONFIRM:

- a) STRUCTURAL OPENING SIZES RELATIVE TO GRILLE REQUIREMENTS
b) ARCHITECTURAL CEILING GRID MEASUREMENTS (ie. HARD METRIC / IMPERIAL)

GENERAL NOTE:

ALL GRILLES, DIFFUSERS AND REGISTERS WHICH ARE DUCT CONNECTED ARE TO BE PROVIDED WITH MANUAL DAMPERS AT CONNECTION DUCTS EXCEPT WHERE MANUAL DAMPERS ARE SPECIFIED INTEGRAL TO GRILLES.



DRAWING LIST:	
M100	MECHANICAL WASHROOM BUILDING LEGEND, SCHEDULES
M200	MECHANICAL WASHROOM BUILDING FOUNDATION PLAN
M300	MECHANICAL WASHROOM BUILDING VENTILATION, PLUMBING PLAN
M400	MECHANICAL WASHROOM BUILDING DETAILS

GENERAL NOTES:
THIS IS A THREE (3) SEASON FACILITY AND IS NOT MEANT TO BE USED IN WINTER.

ABBREVIATIONS

ABBV	FULL NAME
AC	AIR CONDITIONER
AF	AIR FILTER
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
AS	AIR SYSTEM
B	BOILER
BDD	BACK DRAFT DAMPER
BMS	BUILDING MANAGEMENT SYSTEM
BOD	BOTTOM OF DUCT
BTUH	BRITISH THERMAL UNIT
CC	COIL - COOLING
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHGLYR	CHILLED GLYCOL RETURN
CHGLYS	CHILLED GLYCOL SUPPLY
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
COMP	AIR COMPRESSOR
CR	CONDENSATE RECEIVER
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DC	DRY COOLER
DCW	DOMESTIC COLD WATER
DF	DRINKING FOUNTAIN
DFU	DUCT FURNACE
DHWR	DOMESTIC HOT WATER RECIRC.
DIFF	DIFFUSER
DN	DOWN
DWH	DOMESTIC HOT WATER
DWH	DOMESTIC WATER HEATER
E/A	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
EF	FAN - EXHAUST
ELEV	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
FD	FLOOR DRAIN
FF	FORCE FLOW
FFD	FUNNEL FLOOR DRAIN
FLA	FULL LOAD AMPS
FU	FURNACE
GC	COIL - GLYCOL
GNC	GENERAL CONTRACTOR
GPM	US GALLONS PER MINUTE
HB	HOSEBIBB
HBDR	HUB DRAIN
HC	COIL - HEATING
HC	COIL - HEATING
HE	HEAT EXCHANGER
HP	HORSEPOWER
HUM	HUMIDIFIER
ID	INSIDE DIMENSION
JS	JANITOR'S SINK
L/S	LITRES PER SECOND
LAV	LAVATORY
MAX	MAXIMUM
MIN	MINIMUM
MUA	MAKE UP AIR
NOM	NOMINAL
O/A	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
PHC	COIL - PREHEAT
R/A	RETURN AIR
RD	DRAIN - ROOF AREA
RELJA	RELIEF AIR
RF	FAN - RETURN AIR
RHC	COIL - REHEAT
RTU	ROOF TOP UNIT
RWL	RAIN WATER LEADER
S/A	SUPPLY AIR
SC	SPRAYED COIL
SF	FAN - SUPPLY AIR
SK	SINK
SL	SILENCER
SP	STATIC PRESSURE
UR	URINAL
WC	WATER CLOSET

ELECTRIC HEATER SCHEDULE

TAG No.	LOCATION	MANUFACTURER	MODEL No.	OUTPUT (kW)	VOLTS	PHASE	ACCESSORIES & REMARKS
UH-1	MECH	OUELLET	OAS05000AM	5.0	240	1	c/w INTEGRAL THERMOSTAT
UH-2	JANITOR	OUELLET	OAS04000AM	4.0	240	1	c/w INTEGRAL THERMOSTAT
CUH-1	UNIVERSAL	OUELLET	OAC05000D1	5	240	1	SURFACE WALL MOUNT c/w INTEGRAL THERMOSTAT
CUH-2	UNIVERSAL	OUELLET	OAC05000D1	5	240	1	SURFACE WALL MOUNT c/w INTEGRAL THERMOSTAT
CUH-3	UNIVERSAL	OUELLET	OAC05000D1	5	240	1	SURFACE WALL MOUNT c/w INTEGRAL THERMOSTAT
EDH-1	—	THERMOLEC	FC	5	240	1	FRAME TO MATCH DUCT SIZE, AIR PROVING SWITCH
EDH-2	—	THERMOLEC	FC	5	240	1	FRAME TO MATCH DUCT SIZE, AIR PROVING SWITCH

DOMESTIC WATER HEATER SCHEDULE

TAG No.	LOCATION	MANUFACTURER	MODEL No.	RECOVERY RATE LITRES/HR (37.7°C RISE)	INPUT (kW)	STORAGE CAPACITY (LITRES)	VOLTS	PHASE	REMARKS
DWH-1	MECH	AO SMITH	DEL-20	—	5	76	240	1	c/w WATER HAMMER ARRESTOR

PLUMBING FIXTURE ROUGH-IN SCHEDULE:

ROUGH-IN FIXTURE PIPING CONNECTION IN ACCORDANCE WITH FOLLOWING TABLE OF MINIMUM SIZES OR AS REQUIRED FOR PARTICULAR FIXTURES.

	Hot Water (mm)	Cold Water (mm)	Waste (mm)	Vent (mm)
Lavatories	15	15	30	30
Service Sink	15	15	50	40
Kitchen Sink	15	15	40	30
Dishwasher	15	—	30	30
Coffee Maker	10	—	—	—
Water Fill Station	—	15	30	30
Water Closet (Flush Valve)	—	25	75	50
Water Closet (Tank Type)	—	15	75	50
Urinals (Flush Valve)	—	20	50	40
Waterless Urinals (rough-in DCW)	—	20	50	40
Floor Drains	—	—	100	40
Hose Bibbs	20	20	—	—
Shower	15	15	50	40

NOTE: ALL NEW SANITARY AND VENT PIPING UNDER SLAB TO BE MINIMUM 100K, OTHERWISE NOTED. (TYP. ALL DWGS)

PLUMBING FIXTURE SCHEDULE

FIXTURE TAG	TYPE	FIXTURE CONNECTIONS (mm)					DESCRIPTION
		DCW	DHW	DTHW	DRAIN	VENT	
L-1	SS PUSH BUTTON	15	15	—	30	30	KINDRED COMMERCIAL VANITY TOP SINK MODEL #OV1619-6-2, SINGLE COMPARTMENT SELF RIMMING VANITY BASIN WITH FAUCET LEDGE, 18 GAUGE (1.2 MM), TYPE 304 (CNS 18/10) STAINLESS STEEL, MIRROR FINISHED RIM, #4 SATIN FINISHED BOWL, UNDERCOATED TO REDUCE CONDENSATION AND RESONANCE. INCLUDES FACTORY APPLIED RIM SEAL, COUTOUT TEMPLATE, AND INSTALLATION HARDWARE. CERTIFIED TO ASME A112.19.3-2008 / CSA B45.4-08. DELTA METERING FAUCET MODEL #B6T1104, SINGLE HOLE MOUNT FAUCET, POLISHED CHROME PLATED FINISH, VANDAL-RESISTANT PUSH BUTTON, METERING SLOW CLOSE CARTRIDGE, VANDAL-RESISTANT NON-AERATING SPRAY, 0.5 GPM (1.9 L/MIN), TOTAL FLOW NOT TO EXCEED 0.25 GALLON PER HANDLE ACTIVATION
L-2	SS PUSH BUTTON WALL MOUNT	15	15	—	30	30	KINDRED COMMERCIAL WALL HUNG MODEL #WHB1617-3/1, SINGLE COMPARTMENT WALL HUNG BASIN, CENTRE BACK WASTE LOCATION, 18 GAUGE (1.2 MM), TYPE 304 (CNS 18/10) STAINLESS STEEL. EXPOSED SURFACES ARE #4 SATIN FINISHED. RADIUS COVED BOWL CORNERS. ONE PIECE WALL HANGER. WASTE ASSEMBLY INCLUDED. CERTIFIED TO ASME A112.19.3-2008 / CSA B45.4-08. DELTA METERING FAUCET MODEL #B6T1104, SINGLE HOLE MOUNT FAUCET, POLISHED CHROME PLATED FINISH, VANDAL-RESISTANT PUSH BUTTON, METERING SLOW CLOSE CARTRIDGE, VANDAL-RESISTANT NON-AERATING SPRAY, 0.5 GPM (1.9 L/MIN), TOTAL FLOW NOT TO EXCEED 0.25 GALLON PER HANDLE ACTIVATION
WC-1	FLUSH TANK	15	—	—	75	50	BOWL: TOTO MODEL#C744EL#01, UNIVERSAL HEIGHT, ADA COMPLIANT, BOWL ONLY. TANK: TOTO MODEL#ST743E#01, 1.28GPF/4.8LPP.
UR-1	URINAL	20	—	—	50	40	AMERICAN STANDARD WASHBROOK FLOWISE UNIVERSAL URINAL WITH EVERCLEAN MODEL# 6590.001EC.000, VITREOUS CHINA, ULTRA HIGH EFFICIENCY, FLUSHING RIM, ELONGATED 14" RIM FROM FINISHED WALL, WASHOUT FLUSH ACTION, 3/4" INLET SPUD, 2" OUTLET. DELTA TECK C.P. URINAL METERING VALVE MODEL# 66T505, HEAVY-DUTY, BACK INLET SUPPLY, CAST BRASS, 3/4" SPUD, 0.5 GPF/1.9LPP, CHROME PLATED UNION INLET STOP AND INLET COVER TUBE, BRASS OSCILLATING LEVER HANDLE.
SK-1	OUTDOOR SINK	15	15	—	40	30	TARRISON CDS3-18LR-16, TRIPLE COMPARTMENT SINK BASIN TO INCLUDE STAND AND SIDE COUNTERS. CONTRACTOR TO ALLOW FOR THE INSTALLATION OF TWO (2) ZURN Z1348-BFP WALL FAUCETS.
JS-1	JANITOR SINK	15	15	—	40	30	STERN WILLIAMS MODEL #SB-303, c/w SPALSH CATCHER PANELS, DRAIN SHALL BE CAST BRASS WITH STAINLESS STEEL STRAINER CAST INTEGRAL AND SHALL PROVIDE FOR A CAULKED LEAD CONNECTION NOT LESS THAN 1" DEEP TO A 3" PIPE. RECEPTOR COMPOSED OF PEARL GREY MARBLE CHIPS AND WHITE PORTLAND CEMENT GROUND SMOOTH, GROUTED AND SEALED TO RESIST STAINS. CHICAGO FAUCETS MODEL #B97-GP, WALL MOUNTED MANUAL SINK FAUCET WITH 8" CENTERS, VANDAL PROOF 2-3/8" LEVER HANDLE, CERAMIC 1/4 TURN OPERATING CARTRIDGE, ADA ANSI/ICC A117.1
FD-1	FLOOR DRAIN	—	—	—	100	40	WATTS MODEL# FD-100-A EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE ROUND HEEL PROOF NICKEL BRONZE STRAINER, AND NO HUB (STANDARD) OUTLET.
FD-2	FUNNEL FLOOR DRAIN	—	—	—	100	40	WATTS MODEL# FD-100-EF EPOXY COATED CAST IRON FUNNEL FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE ROUND HEEL PROOF NICKEL BRONZE STRAINER, AND NO HUB (STANDARD) OUTLET.

HEAT RECOVERY UNIT SCHEDULE

TAG No.	LOCATION	MANUFACTURER	MODEL No.	AIRFLOW (L/S)		FAN MOTOR (kW)		EST. WEIGHT (kg)	V/PH	MCA	MOP	ACCESSORIES & REMARKS
				SUPPLY	EXHAUST	SUPPLY	EXHAUST					
HRV-1	MECH	ALDES	E650L-FI-EC-N	283	283	0.65	0.65	86	240/1	3.2	15	c/w MERV 8 FILTER, DIGITAL MULTIFUNCTIONAL CONTROL, EC MOTORS

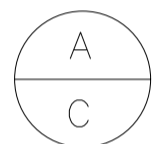
FIRE EXTINGUISHER SCHEDULE

TAG No.	LOCATION	TYPE
FE-1	MECH	5LB

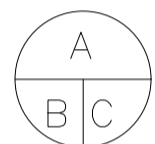
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2	20/09/21	ISSUED FOR REVIEW	OG	SG
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision



A detail number
numéro de detail
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de dessin no.
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Consultant's Name
Nom de l'expert-conseil

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Western and
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Ouest et Nord
du Canada

Project title/Titre du projet

CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

MECHANICAL
WASHROOM BUILDING
COVER SHEET, LEGEND,
SCHEDULES

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AT	Date/Date 03AUG2022
Designed by/Concept par SG	Reviewed by/Revisé par DA	Scale/Echelle AS SHOWN

PWGSC Project Manager/Administrateur de Projets TPSSC

MATTHEW WHALEN

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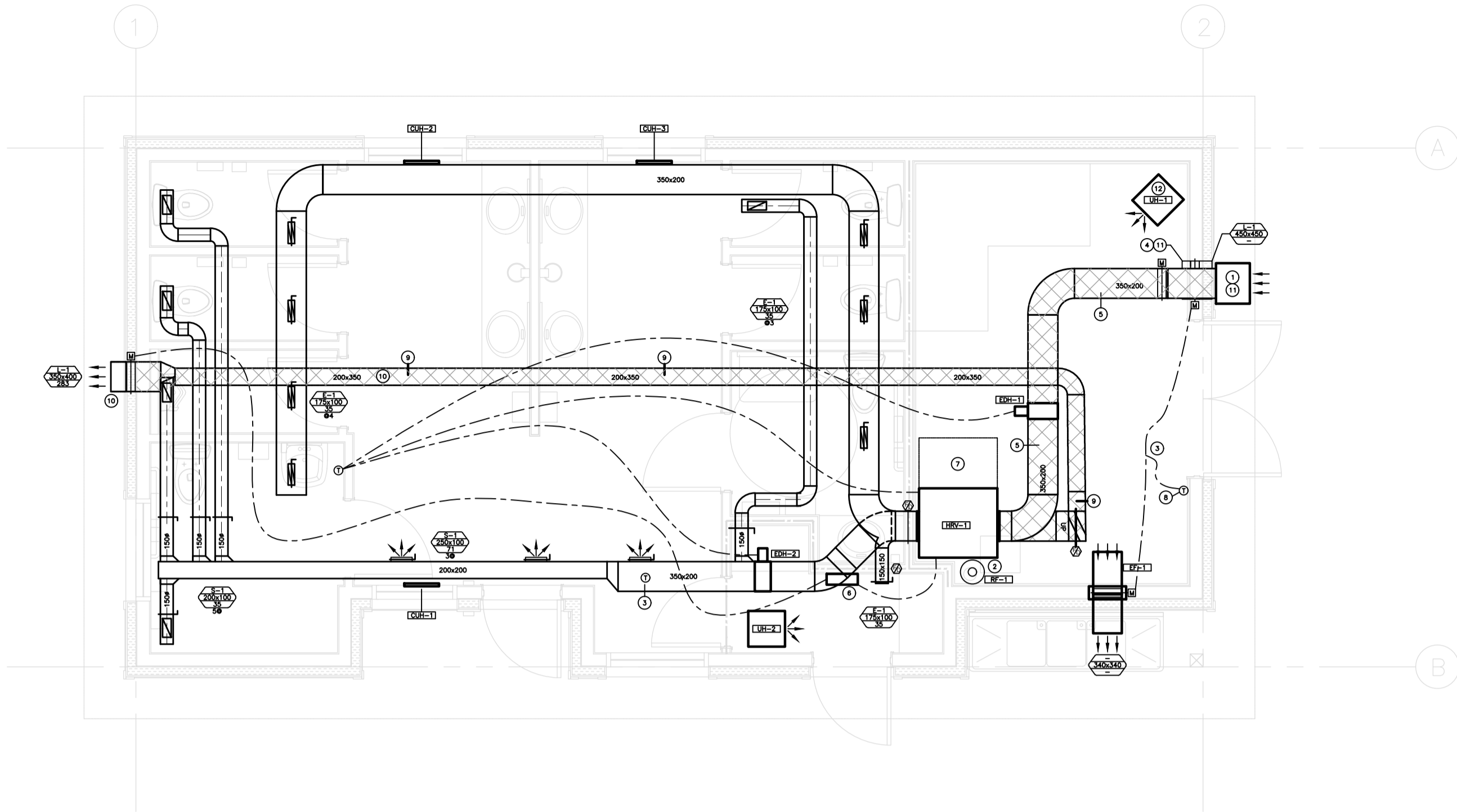
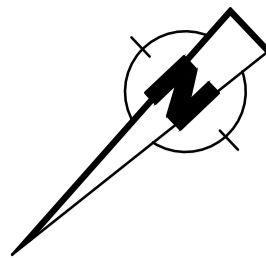
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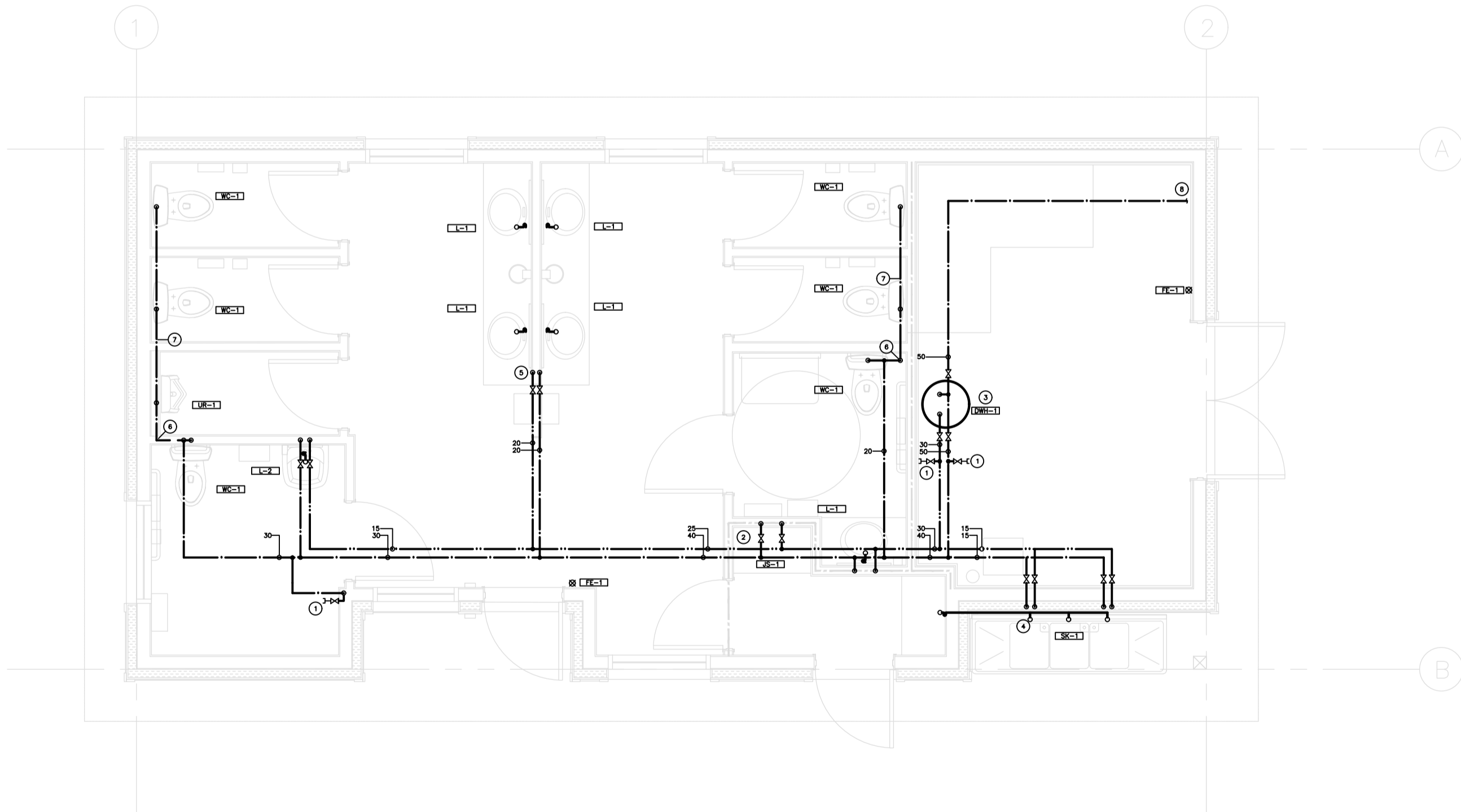
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Project No./No. du projet 19M-01812-00	Asset No./No. du bien —	Sheet No./ No. de la feuille 23
Drawing Reference No./No. de référence du dessin		33

M100



1 RESTROOM PLAN – VENTILATION LAYOUT
M300 128



2 RESTROOM PLAN – PLUMBING LAYOUT
M300 128

- GENERAL NOTES:**
1. THIS CONTRACTOR SHALL REVIEW THE COMPLETE PIPING PACKAGE INCLUDING ALL OTHER DISCIPLINES FOR COORDINATION OF WORK WITH OTHER TRADES.
 2. DRAWINGS ARE TO BE CONSIDERED SUPPLEMENTARY ONLY AND DO NOT SHOW ALL DETAILS.
 3. INSTALL EXTERIOR OUTSIDE AIR INLETS AND EXTERIOR EXHAUST OUTLETS A MINIMUM OF 2' AWAY.
 4. SUPPLY AND INSTALL FIRE DAMPERS ON ALL DUCTS PENETRATING FIRE SEPARATIONS.
 5. ALL SUPPLY AND EXHAUST DUCTWORK TO BE INSULATED FROM 10' OF BUILDING SHELL AND INSULATED PENETRATIONS.
 6. DUCTWORK INSIDE MECHANICAL ROOM TO BE INSTALLED AGAINST CEILING TO MAXIMIZE HEAD SPACE INSIDE OF ROOM.

- KEY NOTES:**
1. EXHAUST HANG LOW BRASS/STEEL: REFER TO 4/10/2. (TYP. OF 2 STAGES).
 2. EXHAUST FAN TO GO THROUGH ROOF AND TERMINATE IN EXTERIOR. DOWN PIPES FROM UNDER SLAB TO EXTERIOR.
 3. INLET DAMPER TO BE INTERLOCKED WITH EXHAUST FAN.
 4. AIR INTAKE TO INCORPORATE LOWER, MOTORIZED DAMPER & NEW 1" FILTER MESH.
 5. INSULATED DUCTWORK w/ 4" CANVAS WRAP.
 6. MAIN CONTROL PANEL.
 7. SERVICE AREA.
 8. REVERSE ACTING THERMOSTAT.
 9. EXHAUST FAN TO RISE UP IN ATTIC AND TRANSFER TO EXIST. ATTIC.
 10. EXHAUST FAN WITH ROOF TRUSSES AND INSTALL ABOVE INSULATION IN ATTIC.
 11. DOWN THE MECHANICAL ROOM & NEW OLD INTAKE INSULATED TO BE COORDINATED AND STAGED AT THIS LOCATION.
 12. UNIT HEATER TO BE MOUNTED DOWN FROM FINISHED CEILING BY HANG CABLE TIES TO BE INSTALLED ABOVE HEATER. CONTRACTOR TO USE SIDEWALL MOUNTING BRACKET.

LEGEND

**PERMIT TO PRACTICE
WSP CANADA INC.**

RM SIGNATURE: _____
RM APEGA ID #: 63127
DATE: 2022-08-03
PERMIT NUMBER: P007641
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

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B
C

Consultant's Name
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**CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)**

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

**MECHANICAL
WASHROOM BUILDING
VENTILATION, PLUMBING
PLAN**

Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par AT	Date/Date 03AUG2022
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**PWGC Project Manager/Administrateur de Projets TPSCG
MATTHEW WHALEN**

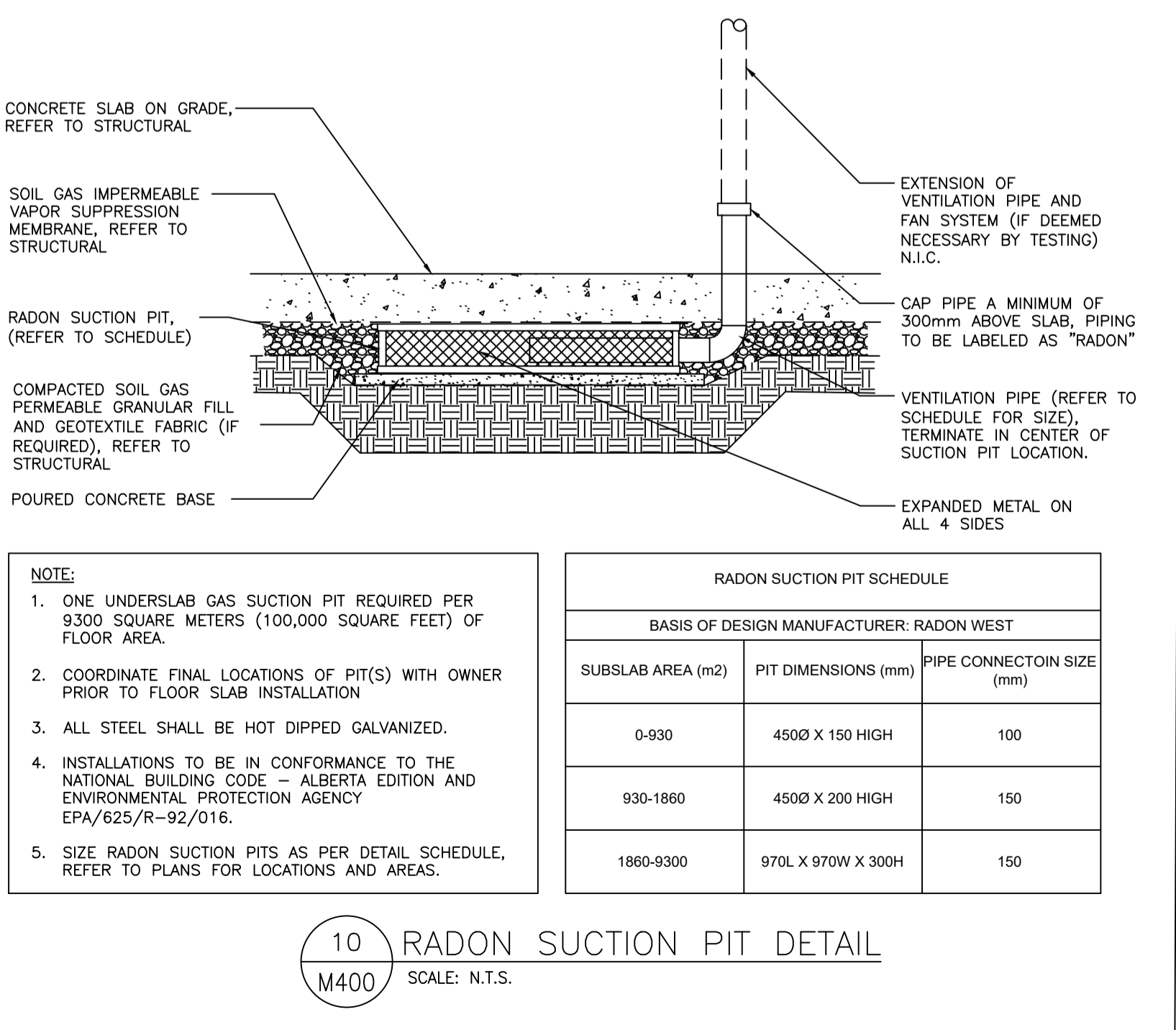
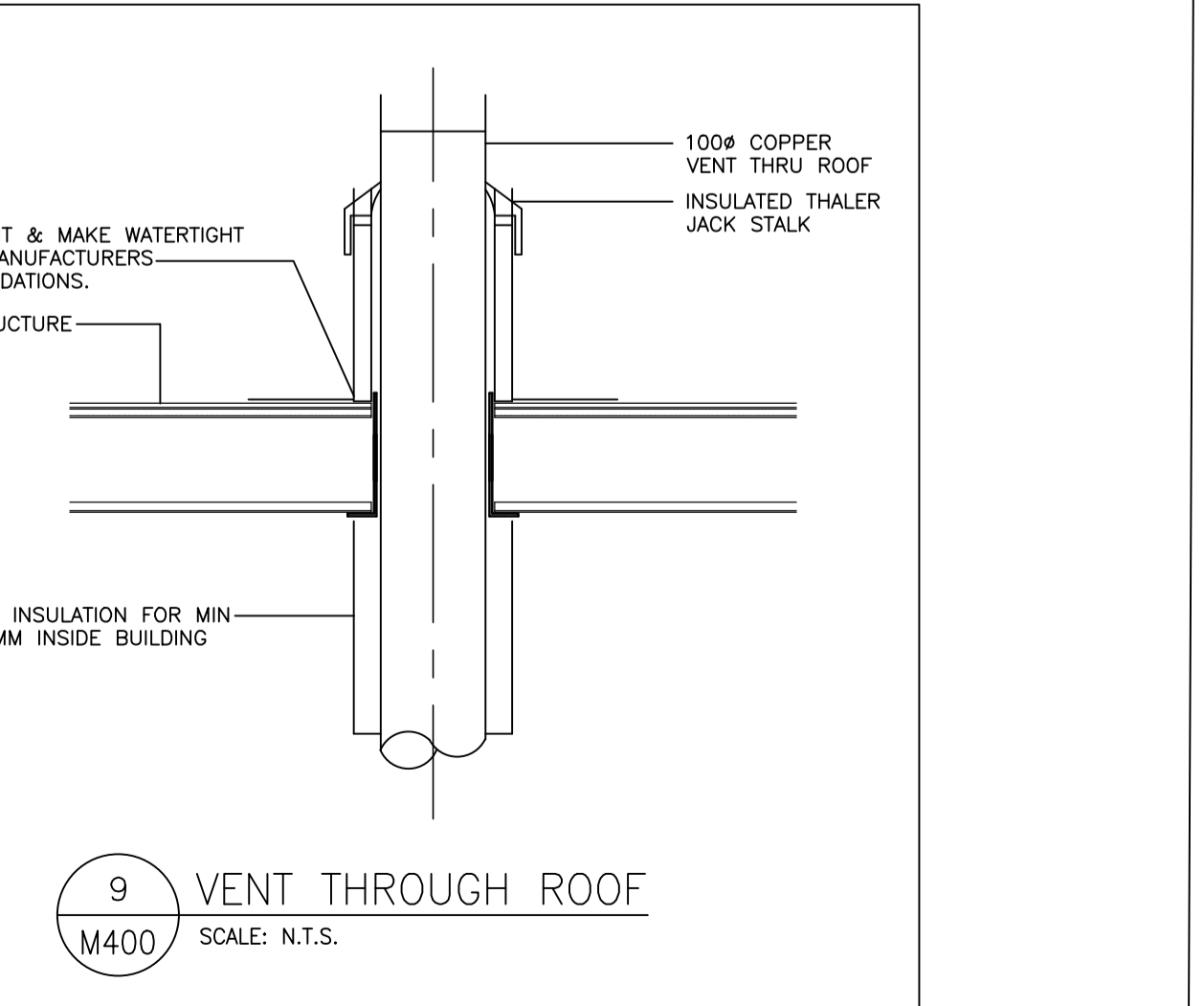
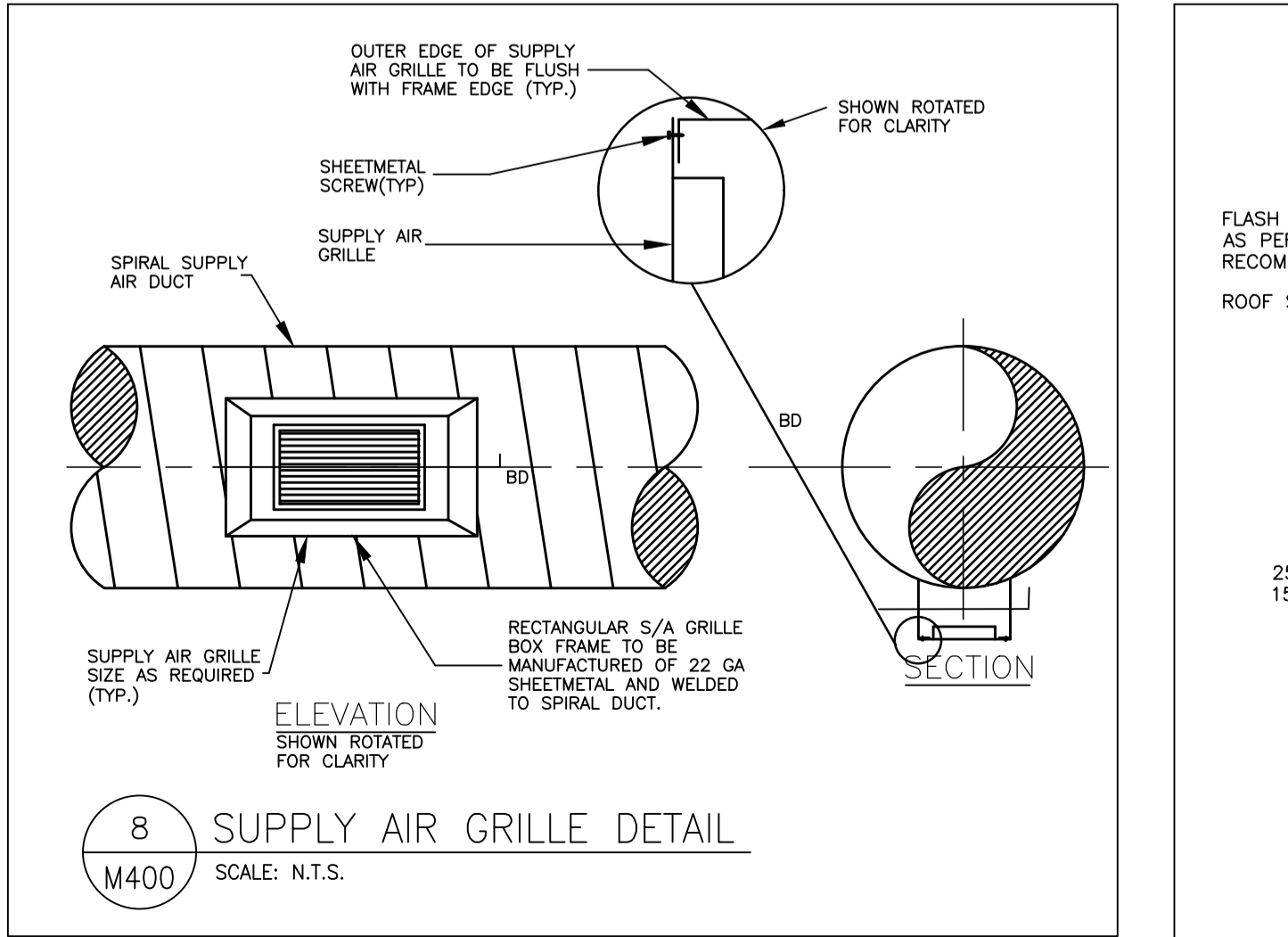
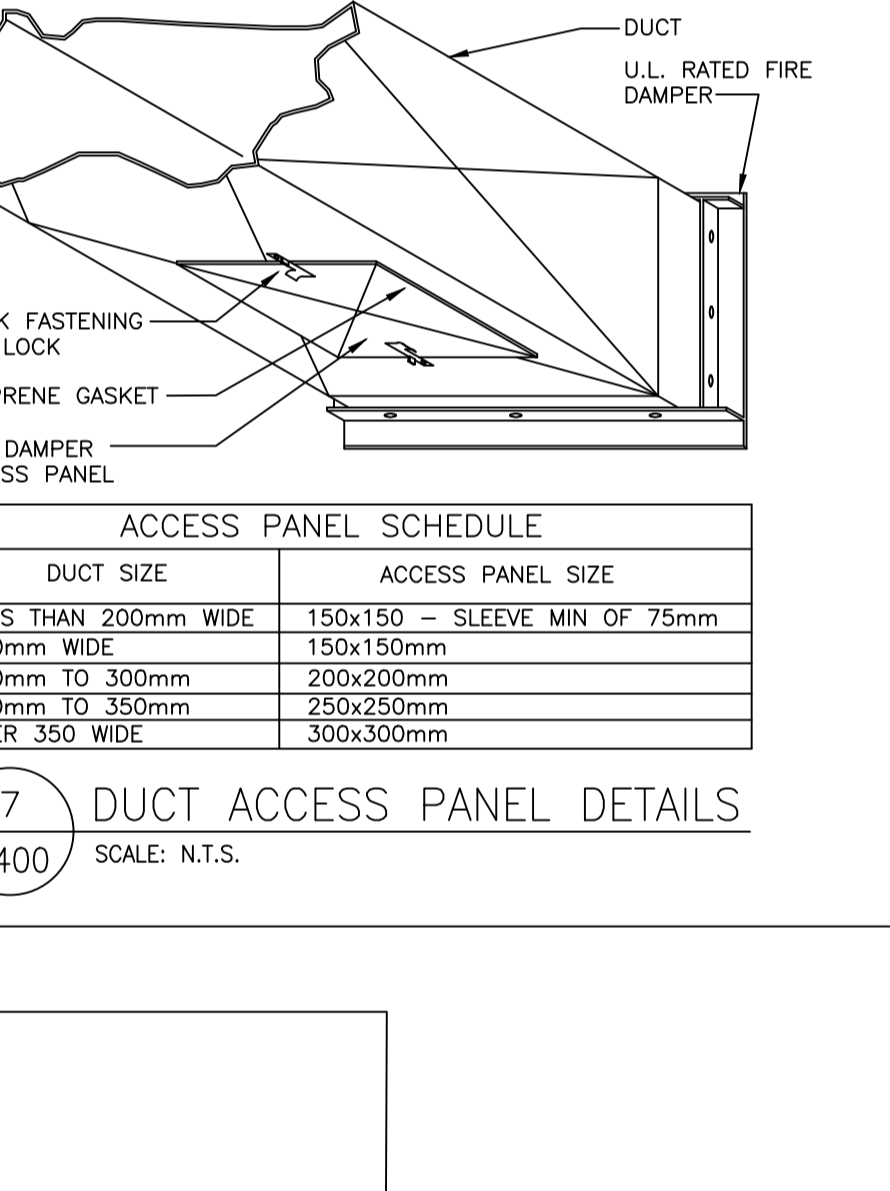
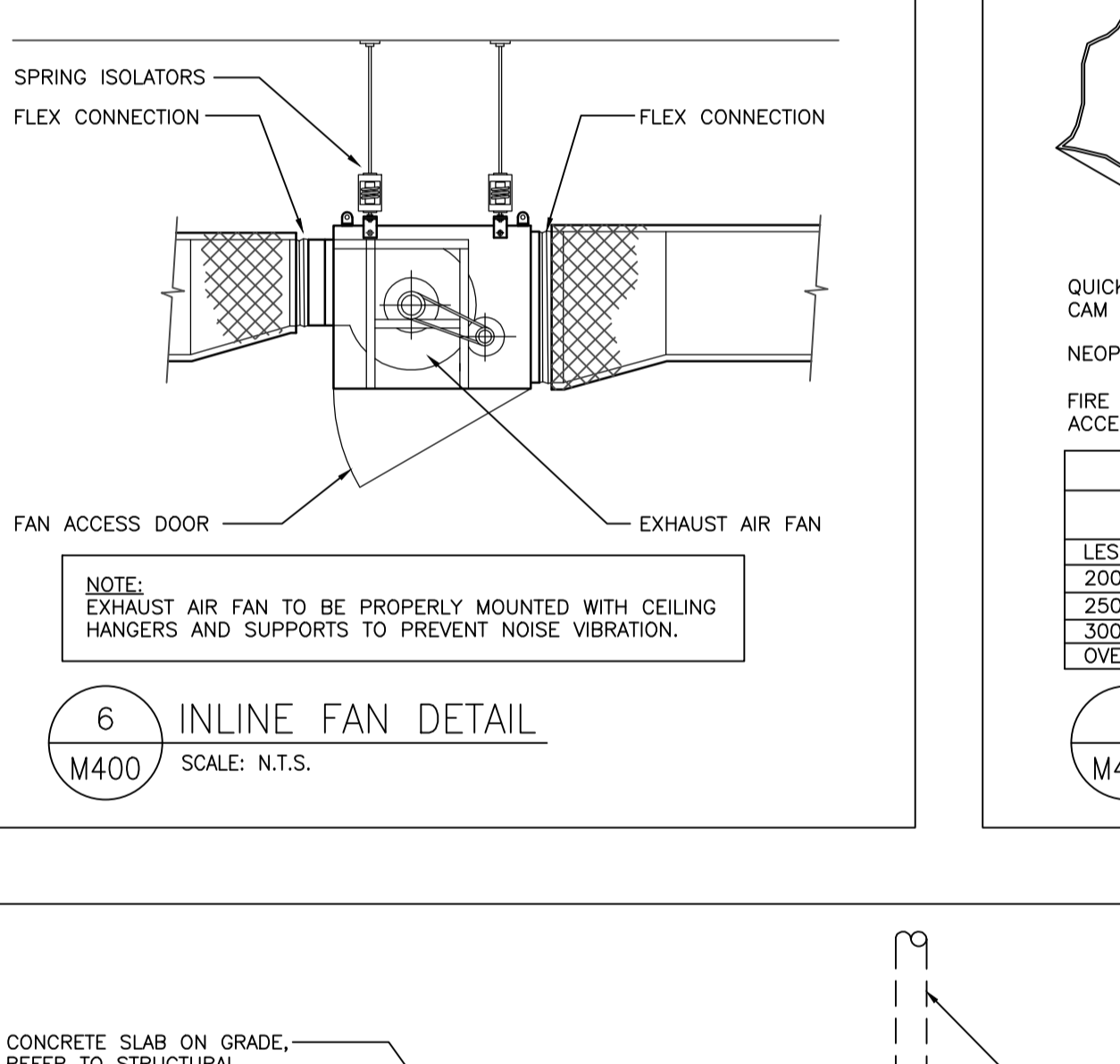
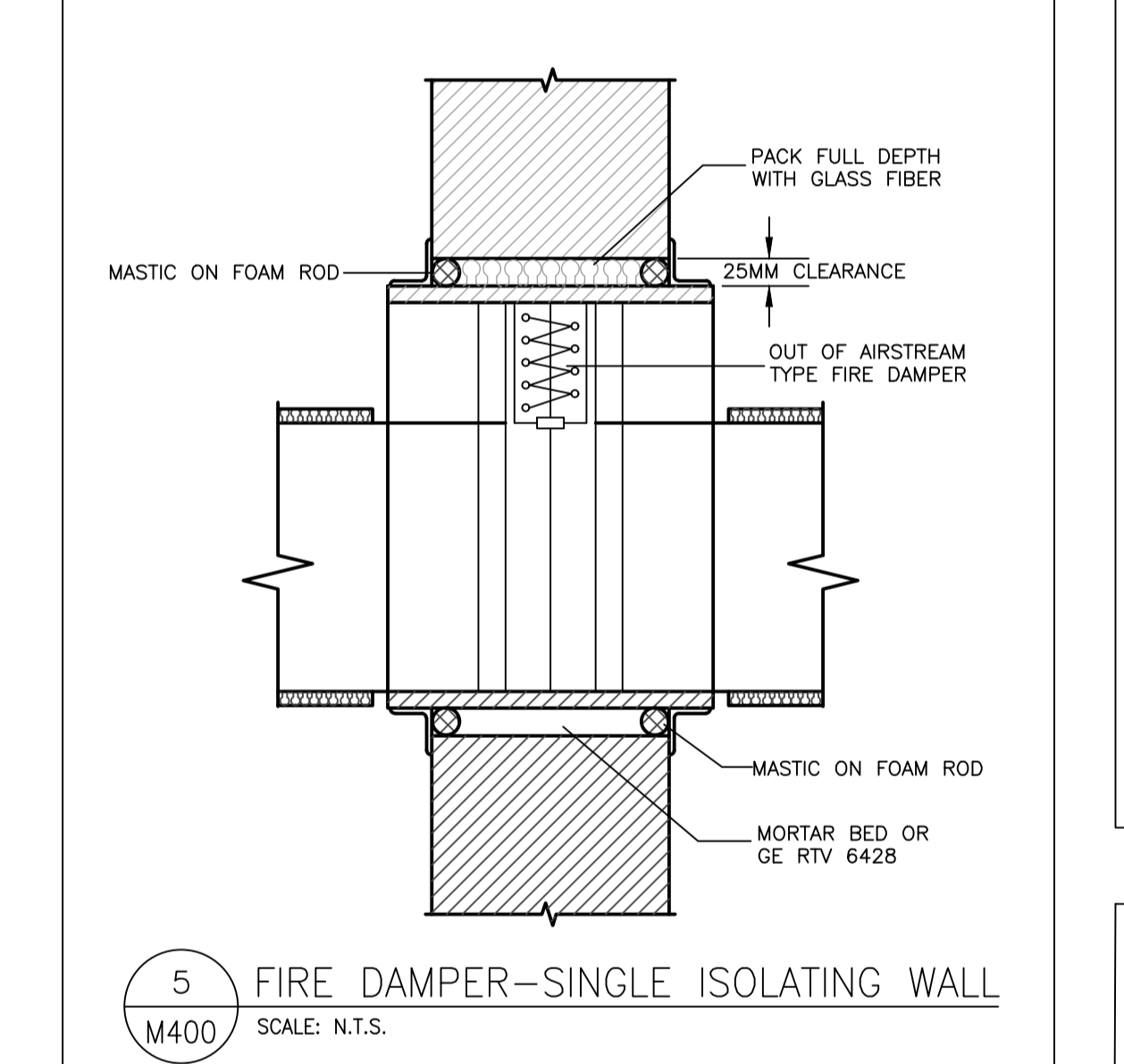
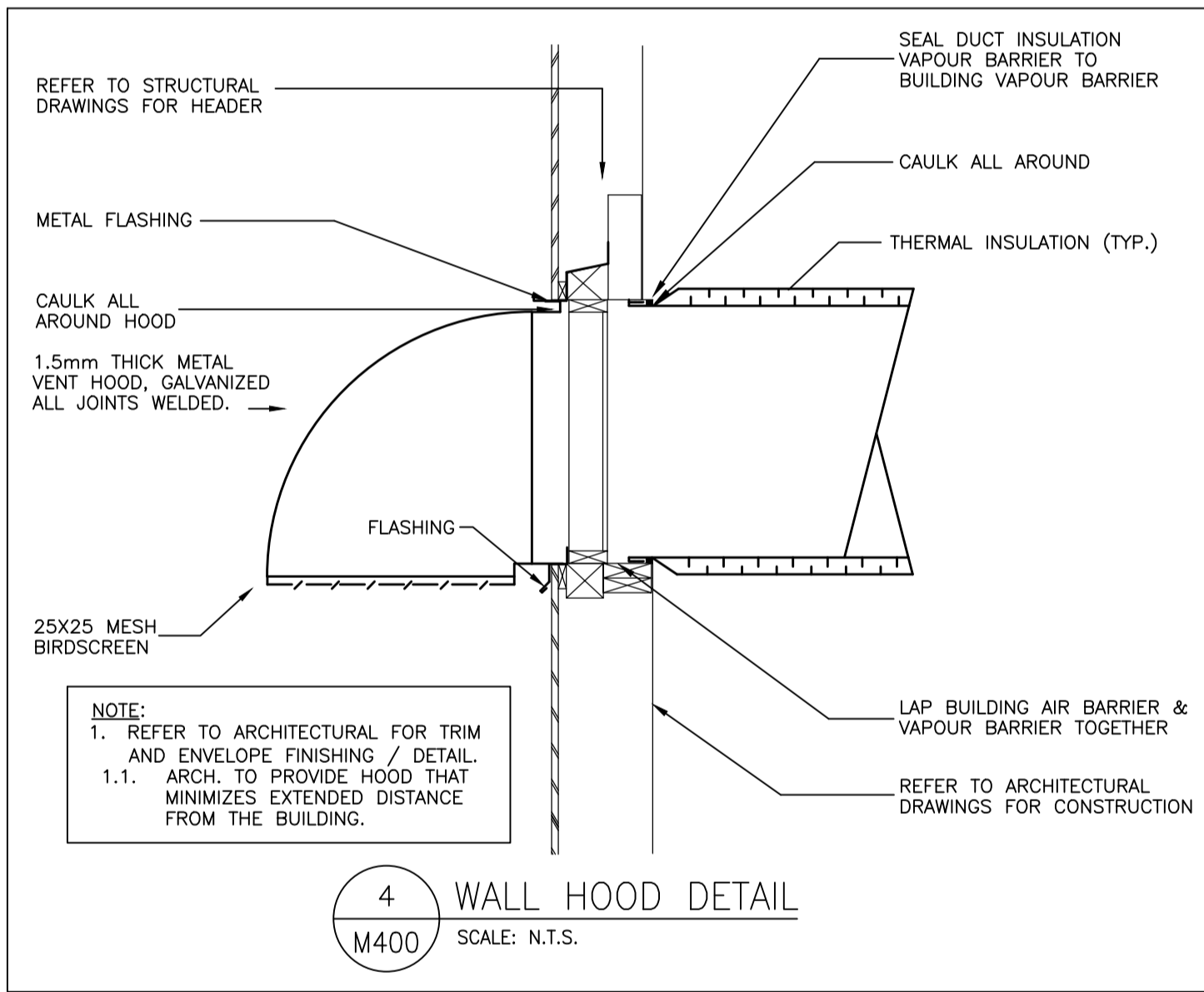
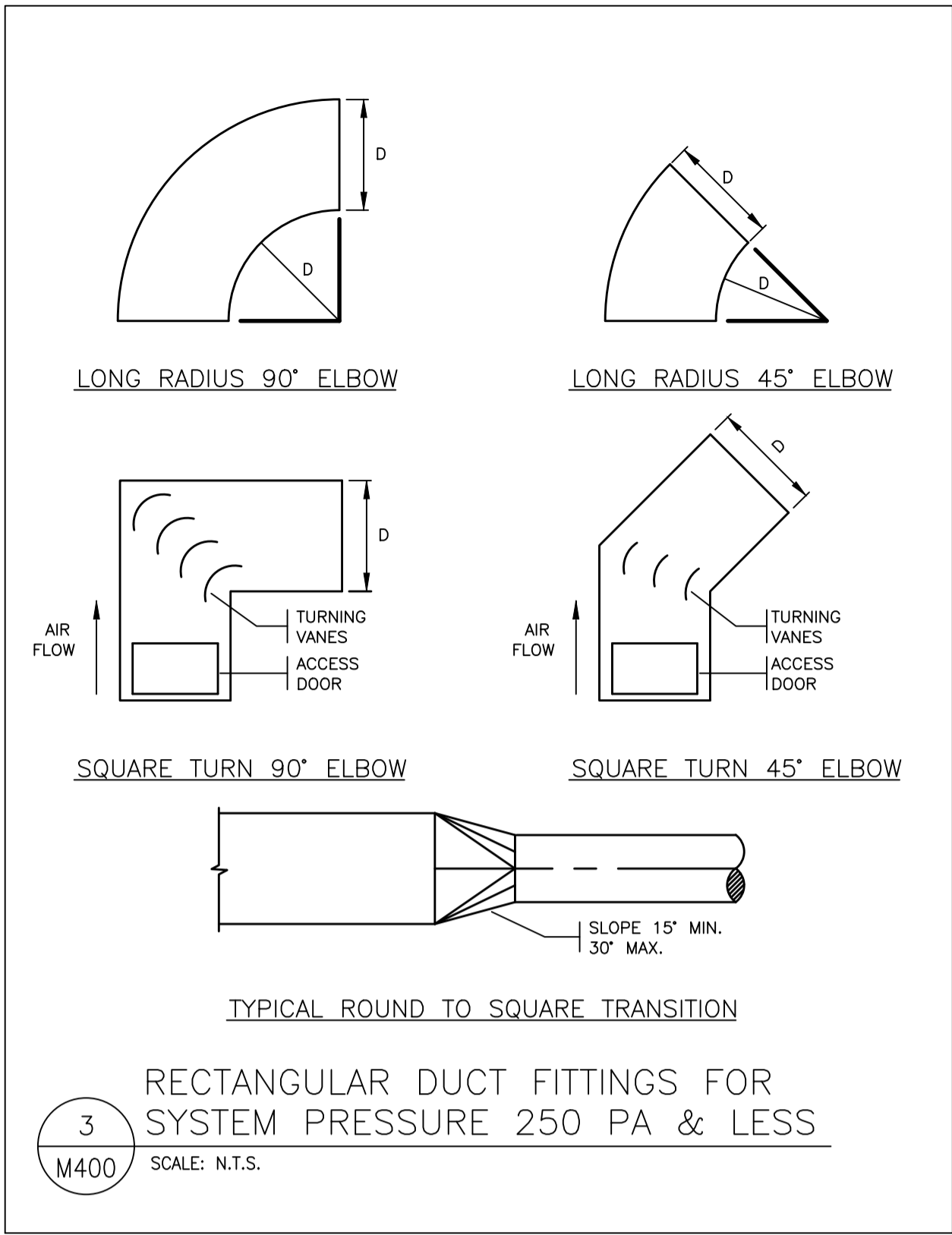
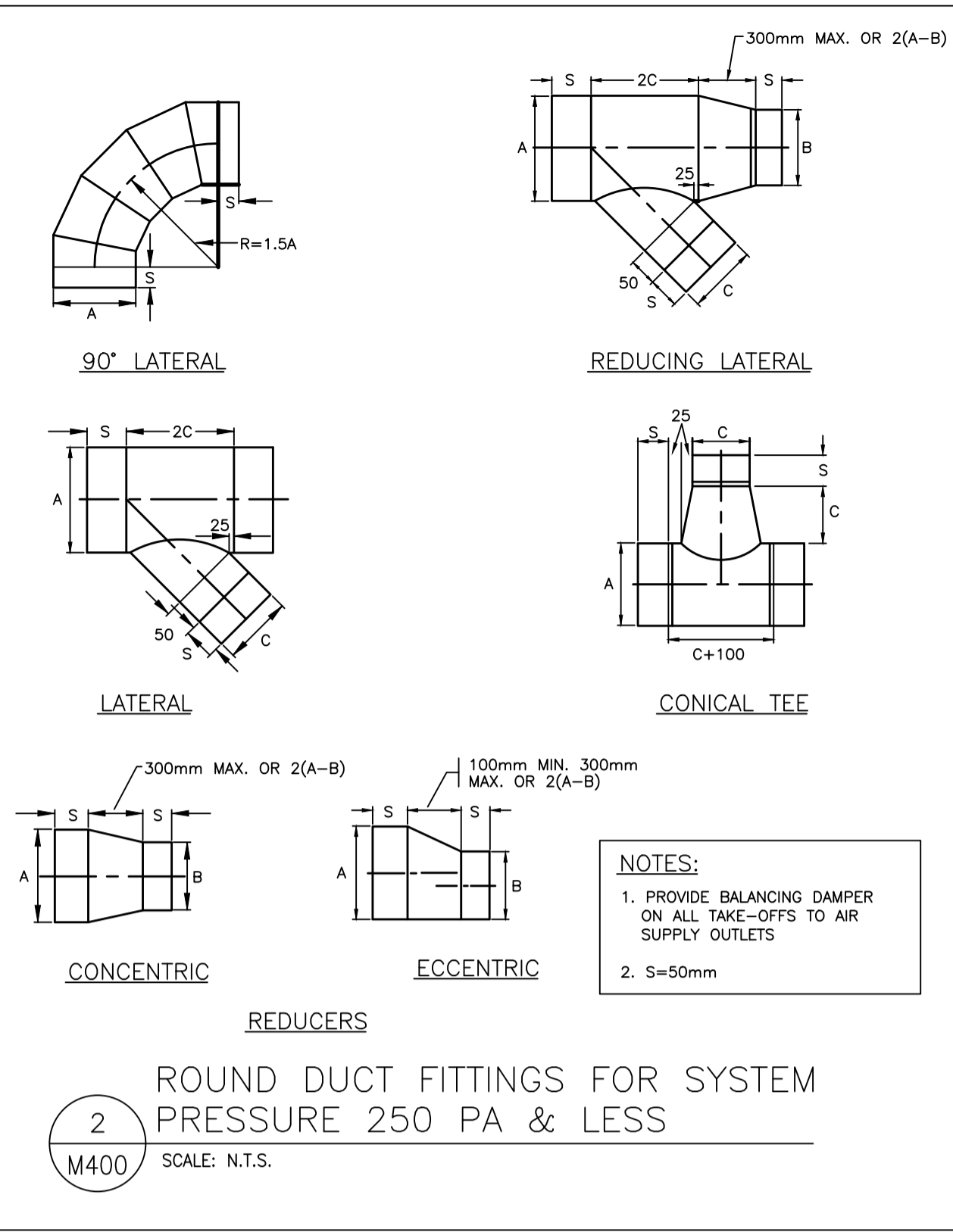
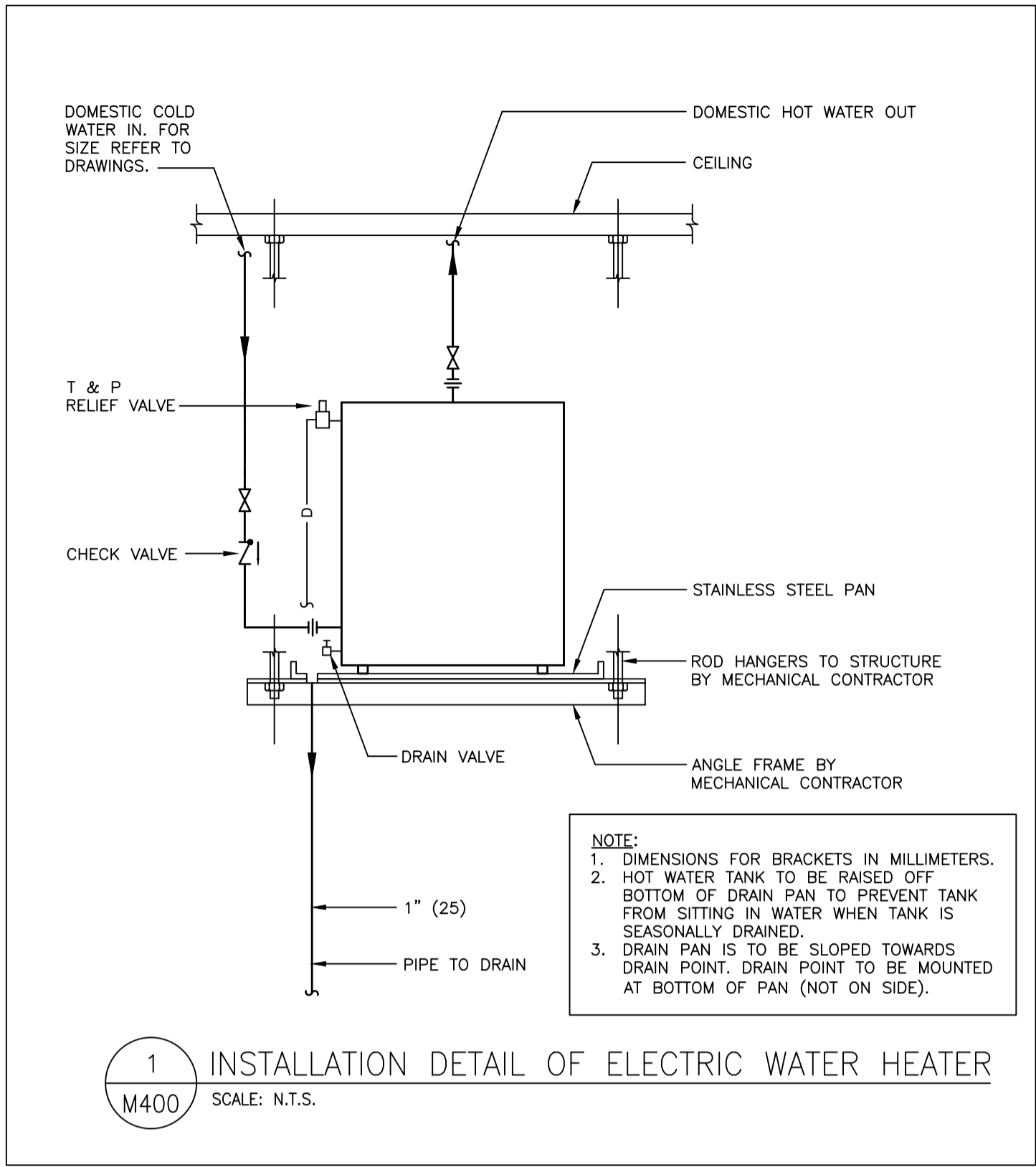
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PWGC Project Manager/Administrateur de Projets TPSCG

Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 25
Drawing Reference No./No. de référence du dessin M300		33



LEGEND

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WSP CANADA INC.
 RM SIGNATURE: _____
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8	09/06/22	ISSUED FOR REVIEW	OG	SG
7	09/06/22	ISSUED FOR REVIEW	OG	SG
6	09/02/22	ISSUED FOR REVIEW	OG	SG
5	04/02/22	ISSUED FOR REVIEW	OG	SG
4	03/11/21	ISSUED FOR REVIEW	OG	SG
3	20/10/21	ISSUED FOR REVIEW	OG	SG
2	20/09/21	ISSUED FOR REVIEW	OG	SG

Revision / Revision

A detail number
 numéro de détail

B source drawing no.
 de dessin no.

C detail on drawing no.
 detail sur dessin no.

Consultant's Name
 Nom de l'expert-conseil

Eng. Stamp
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Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch

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Client/client

Parks Canada Agency

L'Agence Parcs Canada

Western and Northern Region

Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

MECHANICAL WASHROOM BUILDING DETAILS

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
PARKS CANADA	AT	03AUG2022

Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
SG	DA	AS SHOWN

PWGSC Project Manager/Administrateur de Projets TPSSGC

MATTHEW WHALEN

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSSGC

Project No./No. du projet	Asset No./No. du-bien	Sheet No./No. de la feuille
19M-01812-00	-	26

Drawing Reference No./No. de référence du dessin

M400

33

Last Saved: 2022-08-02 8:29:09 PM, By: Moh. Cyrus, Plot Style: -----
 User: C:\Users\Moh.Cyrus\AppData\Local\Temp\19M-01812-00 Castle Campground and Gps\3_1\3.5 Drawings\3.5.1_Electrical\5 Draw\E000 Cover Sheet - Phase 2.dwg

SYMBOL LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
LIGHTING		COMMUNICATION		FIRE ALARM	
	2'x4' RECESSED MOUNTED FLUORESCENT LUMINAIRE		TELEPHONE OUTLET		MANUAL FIRE ALARM PULL STATION
	1'x4' RECESSED MOUNTED FLUORESCENT LUMINAIRE		DATA OUTLET		SMOKE DETECTOR
	2'x2' RECESSED MOUNTED FLUORESCENT LUMINAIRE		COMMUNICATION OUTLET		SMOKE ALARM
	2'x4' SURFACE MOUNTED FLUORESCENT LUMINAIRE		TV OUTLET		DUCT DETECTOR
	1'x4' SURFACE MOUNTED FLUORESCENT LUMINAIRE		AUDIO VISUAL OUTLET		HEAT DETECTOR – FIXED TEMPERATURE
	INDICATES NIGHT LIGHT (NON-SWITCHED LUMINAIRE)		TELEPHONE OUTLET – FLOOR MOUNTED		HEAT DETECTOR – RATE OF RISE
	2'x2' SURFACE MOUNTED FLUORESCENT LUMINAIRE		COMMUNICATION OUTLET – FLOOR MOUNTED		FIRE ALARM BELL
	FLUORESCENT STRIP LUMINAIRE		TV OUTLET – FLOOR MOUNTED		FIRE ALARM BELL WITH VISUAL ALARM
	WALL MOUNTED FLUORESCENT LUMINAIRE		AUDIO VISUAL OUTLET – FLOOR MOUNTED		FIRE ALARM HORN
	TRACK LIGHT		TELEPHONE OUTLET – CEILING MOUNTED		FIRE ALARM HORN WITH VISUAL ALARM
	VALENCE LIGHT		DATA OUTLET – CEILING MOUNTED		VISUAL ALARM – WALL MOUNTED
	RECESSED MOUNTED POT LUMINAIRE		COMMUNICATION OUTLET – CEILING MOUNTED		VISUAL ALARM – CEILING MOUNTED
	SURFACE/SUSPENDED LUMINAIRE		TV OUTLET – CEILING MOUNTED		FIRE SPEAKER – WALL MOUNTED
	WALL MOUNTED LUMINAIRE		AUDIO VISUAL OUTLET – CEILING MOUNTED		FIRE SPEAKER WITH VISUAL ALARM – WALL MOUNTED
	EXIT LIGHT – CEILING MOUNTED		INTERCOM		FIRE SPEAKER – CEILING MOUNTED
	EXIT LIGHT – WALL MOUNTED		EMERGENCY INTERCOM		FIRE SPEAKER WITH VISUAL ALARM – CEILING MOUNTED
	EMERGENCY LIGHT BATTERY PACK C/W DUAL HEAD		EMERGENCY INTERCOM WITH STROBE		FIRE ALARM EXTERIOR BEACON
	EMERGENCY LIGHT SINGLE REMOTE HEAD		VIDEO INTERCOM		FIRE PHONE OUTLET
	EMERGENCY LIGHT DUAL REMOTE HEAD		INTERCOM WITH PROGRAM		FLOW SWITCH
	POLE TOP MOUNTED SITE LUMINAIRE		EMERGENCY PHONE		PRESSURE SWITCH
	LUMINAIRE TYPE DESIGNATOR		EMERGENCY PHONE WITH STROBE		TAMPER SWITCH
SWITCHES		PUBLIC ADDRESS			GATE VALVE
	LINE VOLTAGE SWITCH		HORN LOUD SPEAKER – CEILING MOUNTED		FIRE ALARM MONITORING ELEMENT
	LINE VOLTAGE 3 WAY SWITCH		HORN LOUD SPEAKER – WALL MOUNTED		FIRE ALARM CONTROL ELEMENT
	LINE VOLTAGE 4 WAY SWITCH		LOUD SPEAKER – WALL MOUNTED		FIRE ALARM CONTROL PANEL
	LINE VOLTAGE SWITCH WITH PILOT LIGHT		LOUD SPEAKER – CEILING MOUNTED		FIRE ALARM ANNUNCIATOR
	LINE VOLTAGE KEY OPERATED SWITCH		SIGNAL HORN – CEILING MOUNTED		FIRE ALARM CONTROL CENTRE
	LINE VOLTAGE 2 POLE SWITCH		SIGNAL HORN – WALL MOUNTED		FIRE ALARM ACTIVE GRAPHIC
	PUSHBUTTON		BELL		FIRE ALARM PASSIVE GRAPHIC
	DOOR ASSIST PUSHBUTTON		AUDIO OUTLET		VESDA SMOKE ASPIRATION DETECTOR
	EMERGENCY STOP PUSHBUTTON		MICROPHONE OUTLET		ISOLATION MODULE
	UP/DN/STOP PUSHBUTTON		VOLUME CONTROL		CONTROL MODULE
	FOOT SWITCH		CLOCK SINGLE FACE – WALL MOUNTED		MAGNETIC DOOR HOLDER
	DIMMER SWITCH		CLOCK SINGLE FACE – CEILING MOUNTED	NURSE CALL	
	SWITCH W/ INTEGRAL OCCUPANCY SENSOR		CLOCK DUAL FACE – WALL MOUNTED		SINGLE PATIENT STATION
	SWITCH W/ INTEGRAL DAYLIGHT SENSOR		CLOCK DUAL FACE – CEILING MOUNTED		DOUBLE PATIENT STATION
	SWITCH W/ INTEGRAL OCCUPANCY/DAYLIGHT SENSOR		CLOCK DUAL FACE – WALL MOUNTED		SINGLE PATIENT STATION /W ENTERTAINMENT
	OCCUPANCY SENSOR		BATTERY CLOCK SINGLE FACE – WALL MOUNTED		DOUBLE PATIENT STATION /W ENTERTAINMENT
	DAYLIGHT SENSOR		BATTERY CLOCK DUAL FACE – WALL MOUNTED		L.V. SWITCH SINGLE PATIENT STATION
	OCCUPANCY/DAYLIGHT SENSOR	MECHANICAL			L.V. SWITCH DOUBLE PATIENT STATION
	LOW VOLTAGE SWITCH (# = NUMBER OF SWITCHES)		MOTOR		L.V. SWITCH SINGLE PATIENT STATION /W ENT.
	PHOTOCELL		UNFUSED DISCONNECT		L.V. SWITCH DOUBLE PATIENT STATION /W ENT.
	2 LINE VOLTAGE SWITCHES WITH SWITCH TYPE		FUSED DISCONNECT		STAFF STATION
	3 LINE VOLTAGE SWITCHES WITH SWITCH TYPE		VARIABLE FREQUENCY DRIVE		STAFF EMERGENCY STATION
POWER			MAGNETIC MOTOR STARTER		CODE PINK EMERGENCY STATION
	DUPLEX RECEPTACLE		COMBO MAGNETIC MOTOR STARTER DISCONNECT		CAMERA – FIXED
	DUPLEX RECEPTACLE ABOVE COUNTER		MANUAL MOTOR STARTER C/W PILOT LIGHT		CAMERA – PAN TILT ZOOM
	QUAD RECEPTACLE		CEILING FAN		CAMERA – FIXED WITH VERIFOCUS
	QUAD RECEPTACLE ABOVE COUNTER		THERMOSTAT		CAMERA – 360°
	SPECIAL RECEPTACLE		HUMIDISTAT		CAMERA – MEGAPIXEL
	DUPLEX RECEPTACLE – FLOOR MOUNTED		PRESSURE SWITCH		CAMERA – INFRARED WITH ILLUMINATION
	QUAD RECEPTACLE – FLOOR MOUNTED		LIMIT SWITCH		CAMERA – PAN TILT ZOOM INFRARED WITH ILLUM.
	SPECIAL RECEPTACLE – FLOOR MOUNTED		AQUISTAT		CAMERA – FIXED
	DUPLEX RECEPTACLE – CEILING MOUNTED		MEDIGAS SENSOR		CAMERA – PAN TILT ZOOM
	QUAD RECEPTACLE – CEILING MOUNTED		ELECTRIC REHEAT COIL		CAMERA – FIXED WITH VERIFOCUS
	SPECIAL RECEPTACLE – CEILING MOUNTED		METER		CAMERA – 360°
	SINGLE RECEPTACLE		LIGHTNING ROD		CAMERA – MEGAPIXEL
	CLOCK RECEPTACLE		LIGHTNING PROTECTION AIR TERMINAL		CAMERA – INFRARED WITH ILLUMINATION
	5-20RA (TSLOT) DUPLEX RECEPTACLE		ELECTRICALLY CONTROLLED SOLENOID		CAMERA – INFRARED PTZ WITH ILLUMINATION
	SPLIT RECEPTACLE	EQUIPMENT DESIGNATION		NOTES, LINES, AND ABBREVIATIONS	
	EMERGENCY POWER DUPLEX RECEPTACLE	PANELBOARDS AND DISTRIBUTION			DRAWING REVISION KEYNOTE
	EMERG. POWER DUPLEX RECEPTACLE ABOVE COUNTER		PANELBOARD – SURFACE MOUNTED		DRAWING DESCRIPTION/INSTRUCTION KEYNOTE
	EMERGENCY POWER QUAD RECEPTACLE		PANELBOARD – RECESSED MOUNTED		DRAWING EQUIPMENT/DEVICE KEYNOTE
	EMERG. POWER QUAD RECEPTACLE ABOVE COUNTER		TELEPHONE PANEL – SURFACE MOUNTED		DRAWING KEYNOTE
	CORD REEL		TELEPHONE PANEL – RECESSED MOUNTED	—	LINE TYPE AND WEIGHT INDICATE CONSTRUCTION
	PACPOLE		LOW VOLTAGE RELAY CABINET – SURFACE MOUNTED	—	LINE TYPE AND WEIGHT INDICATE EXISTING
	MODULAR JUNCTION BOX – # INDICATES MODULES		LOW VOLTAGE RELAY CABINET – RECESSED MOUNTED	—	LINE TYPE AND WEIGHT INDICATE DEMOLITION
	DIRECT CONNECTION TO EQUIPMENT		POWER TRANSFORMER		ISOLATED GROUND
	CAR RECEPTACLE		MOTOR CONTROL CENTRE		GROUND FAULT INTERRUPTING
			DIGITAL METERING SYSTEM		BLANK OFF EXISTING DEVICE
			PLYWOOD BACKBOARD		HOUSEKEEPING RECEPTACLE
			GROUND BUS		WEATHER PROOF
			MANUAL TRANSFER SWITCH		TWISTLOCK
					SAFETY SHUTTER
					PILOT LIGHT
					KEYED
					SURGE SUPPRESSION
					EXISTING TO REMAIN
					TO BE REMOVED
					EXISTING TO BE RELOCATED
					FUTURE DEVICE
					DEVICE MOUNTED ABOVE COUNTER OR MILLWORK
SECURITY		SINGLE LINE DIAGRAM SYMBOLS		CONDUIT AND JUNCTION BOXES	
	PROXIMITY CARD READER		FUSED DISCONNECT		JUNCTION BOX
	PROXIMITY CARD READER – LONG RANGE		LOAD BREAK SWITCH		ALTERNATE JUNCTION BOX
	PROXIMITY CARD READER – MULLION MOUNT		AUTOMATIC TRANSFER SWITCH		JUNCTION BOX – WALL
	KEYPAD		AUTOMATIC TRANSFER SWITCH (DETAILED)		JUNCTION BOX – FLOOR
	KEYPAD WITH DISPLAY		POWER TRANSFORMER		CONDUIT
	CARD READER WITH KEYPAD		ISOLATION TRANSFORMER		UNDERGROUND CONDUIT
	CARD READER WITH BIOMETRICS		INSTRUMENT VOLTAGE TRANSFORMER		CABLE TRAY
	DOOR SWITCH		INSTRUMENT CURRENT TRANSFORMER		HOME RUN
	MAGNETIC HOLD OPEN		3 WINDING TRANSFORMER		CONDUIT STUB UP
	REQUEST TO EXIT PUSHBUTTON		NORMAL POWER PANELBOARD		CONDUIT STUB DOWN
	REQUEST TO EXIT PUSHBUTTON WITH PUSH BAR		EMERGENCY POWER PANELBOARD		CABLE TRAY
	REQUEST TO EXIT SENSOR		TRANSIENT VOLTAGE SURGE SUPPRESSOR		BUS DUCT
	GLASS BREAK SENSOR		DIGITAL METERING SYSTEM		CAPPED CONDUIT
	MOTION SENSOR		AMMETER		WIRE IN CONDUIT
	COMBINATION GLASS BREAK AND MOTION SENSOR		VOLTMETER		
	BLUE PULLSTATION FOR FORCED EXIT		WATTMETER		
	HANDICAP DOOR OPERATOR		TEMPERATURE METER		
	ELECTRIC DOOR STRIKE		DRAW OUT		
	ELECTRIC LOCK		LIGHTNING ARRESTOR		
	MOTORIZED LOCK		MOLDED CASE CIRCUIT BREAKER		
	CYPHER LOCK		STAND ALONE MOLDED CASE CIRCUIT BREAKER		
	MAGNETIC LOCK		TRANSFORMER		
	PNEUMATIC LOCK		BATTERY		
	DELAYED EGRESS		NORMALLY CLOSED PUSH BUTTON		
	ELECTRIC DOOR OPERATOR		NORMALLY OPEN PUSH BUTTON		
	ELECTRIC DOOR CLOSER		NORMALLY CLOSED CONTACT		
	ELECTRIC DOOR CLOSER /W SMOKE DETECTOR		NORMALLY OPEN CONTACT		
	GATE OPERATOR		FUSIBLE LINK		
	OVERHEAD DOOR OPERATOR		RED INDICATOR LIGHT		
	DOOR BELL		GREEN INDICATOR LIGHT		
	SECURITY SOUNDER		CONTACTOR		
	DOOR SOUNDER		MOTOR RELAY		
	BUZZER		CONTROL RELAY		
	SECURITY SIREN		AUX RELAY		
	PANIC WIRELESS RECIEVER		FUSE		
	PANIC STROBE LIGHT		RESISTOR		
	PANIC PUSHBUTTON		CONNECTION POINT		
	DISTRESS PUSHBUTTON		EQUIPMENT TERMINAL		
	MEDIC ALARM PUSHBUTTON		GENERATOR		
	REMOTE READER RELAY				
	DOOR HARDWARE POWER SUPPLY				
	DOOR HARDWARE GROUP IDENTIFIER				
	CAMERA – FIXED				
	CAMERA – PAN TILT ZOOM				
	CAMERA – FIXED WITH VERIFOCUS				
	CAMERA – 360°				
	CAMERA – MEGAPIXEL				
	CAMERA – INFRARED WITH ILLUMINATION				
	CAMERA – PAN TILT ZOOM INFRARED WITH ILLUM.				
	CAMERA – FIXED				
	CAMERA – PAN TILT ZOOM				
	CAMERA – FIXED WITH VERIFOCUS				
	CAMERA – 360°				
	CAMERA – MEGAPIXEL				
	CAMERA – INFRARED WITH ILLUMINATION				
	CAMERA – INFRARED PTZ WITH ILLUMINATION				
CAMERA SUBSCRIPT					
MOUNTING TYPE					
xx—HOUSING TYPE					
MOUNTING					
c – CEILING					
w – WALL					
r – RECESSED					
p – POLE					
HOUSING					
d – DOME					
s – SHELL					
c – CORNER					

LEGEND

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 RA APEGA ID #: _____ 63127
 DATE: _____ 2022-08-02
 PERMIT NUMBER: P007641
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

9	2022/08/02	ISSUED FOR TENDER	CM	KR
8	2022/06/02	ISSUED FOR PCA REVIEW	CM	KR
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5	2021/10/28	ISSUED FOR PCA REVIEW	CM	KR
4	2021/09/23	ISSUED FOR PCA REVIEW	CM	KR
3	2021/08/13	ISSUED FOR PCA REVIEW	CM	KR
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

A

C

A detail number
 numero de detail
 B source drawing no.
 de dessin no.
 C detail on drawing no.
 detail sur dessin no.

A

B

C

Consultant's Name
 Nom de l'expert--conseil

Eng. Stamp
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Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Client Services Team
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 Branche d'Opérations

Client/client

 Parks Canada Agency

L'Agence Parcs Canada

Western and Northern Region

Ouest et Nord du Canada

Project title/Titre du projet		
CASTLE MOUNTAIN CAMPGROUND (PHASE 2)		
BANFF NATIONAL PARK, ALBERTA		
Drawing title/Titre du dessin		
ELECTRICAL COVER SHEET		
Surveyed by/Arpentés par PARKS CANADA	Drawn by/Dessiné par CM	Date/Date 04FEB2020
Designed by/Concept par CM/KR	Reviewed by/Revise par KR	Scale/Echelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPSCG MATTHEW WHALEN		
Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSCG	
Project No./No. du projet 19M-01812-00	Assef No./No. du-bien -	Sheet No./ No. de la feuille 27 33
Drawing Reference No./No. de référence du dessin E000		



A1 841 x 594



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Revision / Revision	
	<p>A detail number numéro de détail</p>
	<p>B source drawing no. de dessin no.</p>
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<p>Consultant's Name Nom de l'expert-conseil</p>  <p style="text-align: center;">WSP Canada Inc. 729 10 Street, Suite 203 Camrose, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com</p>	<p>Eng. Stamp Sceau de l'ingénieur</p> <div style="float: right; text-align: right;">  PROFESSIONAL ENGINEER / INGÉNIEUR WSP CANADA INC. 729-10 STREET, SUITE 203 CAMROSE, ALBERTA T1W 2A3 403.678.3500 </div> <p>61327 2022-08-02</p>
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Canada

Client/client 	Parks Canada Agency	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

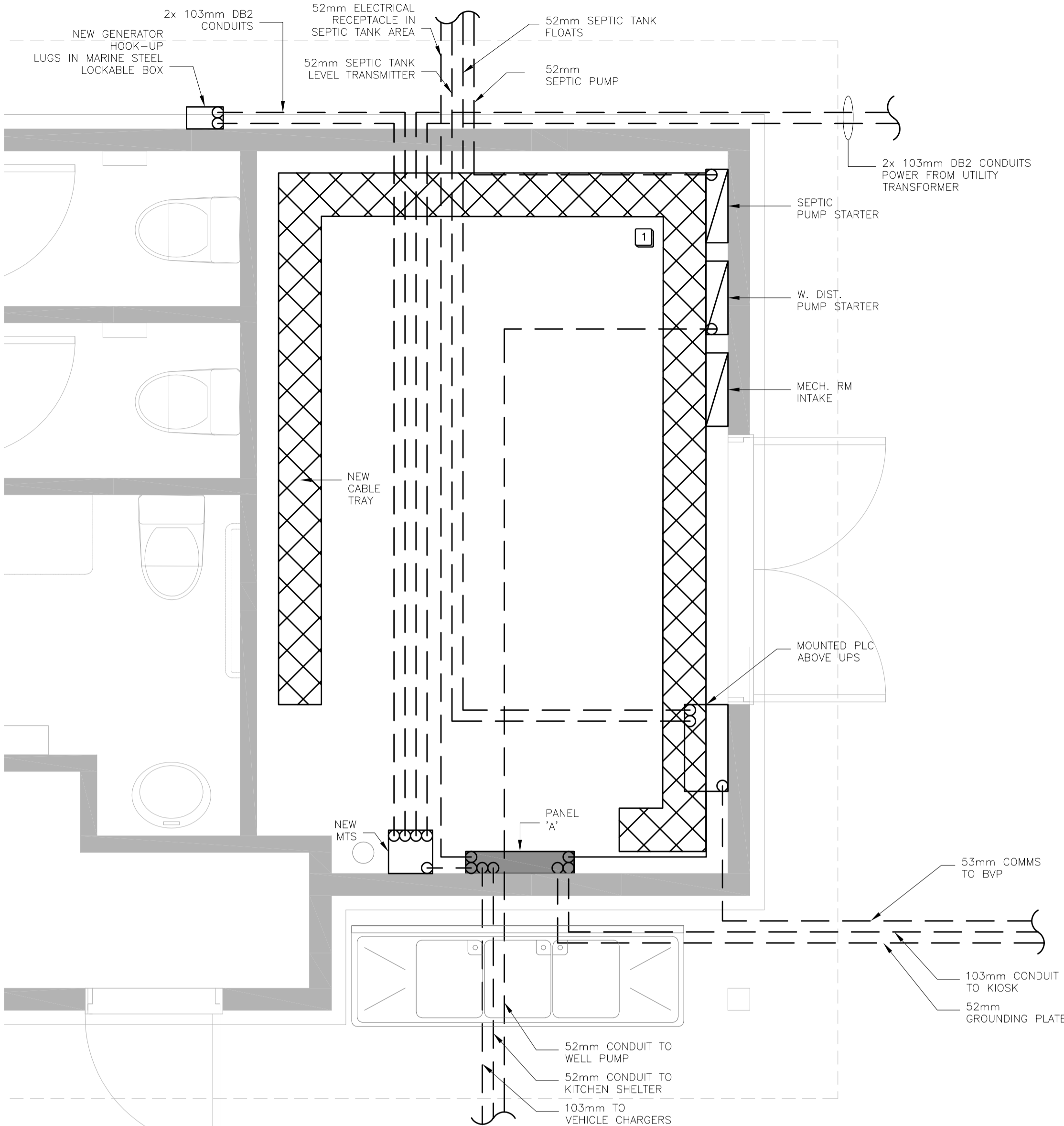
SITE PLAN - POWER RENOVATION LAYOUT

Surveyed by/Arpenté par PARKS CANADA		Drawn by/Dessiné par CM		Date/Date 04FEB2020	
Designed by/Concept par CM/KR		Reviewed by/Revisé par KR		Scale/Echelle AS SHOWN	
PWGSC Project Manager/Administrateur de Projets TPSCG MATTHEW WHALEN					
Client Acceptance/Acceptation du client			Approved by/Approuvé par		
<div></div> <div>Park Responsible Officer/Agent Responsable</div>			<div></div> <div>PWGSC Project Manager/Administrateur de Projets TPSCG</div>		
Project No./No. du projet 19W-01812-00		Asset No./No. du bien -		Sheet No./No. de la feuille 28 33	
Drawing Reference No./No. de référence du dessin E100					

- ## NOTES:
1. CONTRACTOR IS TO CAP CONDUIITS WHICH ARE BEING TERMINATED UNDERGROUND FOR PHASE 3 TIE-IN AND EXTEND 2' X4" PIECE OF WOOD FROM 150MM IN FRONT OF CONDUIT CAP TO 1M ABOVE THE GROUND SURFACE TO ALLOW FOR EASY FUTURE LOCATING AND TIE-IN.
 2. CONTRACTOR TO PROVIDE TEMPORARY OVER SURFACE POWER CONNECTION FROM EXISTING OVERHEAD LINES POLE/TERMINATION POINT TO NEW GENERATOR CONNECTION LUGS ON OUTSIDE OF WASHROOM BUILDING TO PROVIDE TEMPORARY POWER TO BUILDING UNTIL PHASE 3 IS COMPLETED.
 3. GROUNDING PLATE INSTALLATION INCLUDED IN SCOPE. LOCATION TO BE DETERMINED ON SITE WITH DEPARTMENTAL REPRESENTATIVE.

KEYNOTES:

- 1 P: 1x 53mmC DB2
- 2 P: 2x 103mmC DB2
- 3 P: 1x 103mmC DB2
- 4 P: 2x 103mmC DB2
- 5 P: 2x 103mmC DB2
- 6 C: 1x 53mmC DB2
- 7 *CORE HOLE THROUGH CONCRETE SLAB AND TERMINATE 1X 53mmC INTO 300mm X 300mm CONDUIT INSTALLED BY PARKS CANADA ON OUTSIDE OF BUILDING.*
- 8 *TERMINATE 1x53mmC INTO 300mm x 300mm PVC JB ON 8"x8" WOODEN POST (TYP.)*
- 9 600mm (W) X 900mm (L) x 900mm (D) HDPE STRUCTURAL VAULT C/W COMPOSITE LID.
- 10 WASHROOM SEPTIC TANK AREA; SEE DRAWING E1.3 FOR CONDUIT AND TERMINATION REQUIREMENTS.
- 11 FORTIS TRANSFORMER BASE AND GROUNDING GRID.
- 12 EXISTING FORTIS OVERHEAD POWERLINE
- 13 EXISTING FORTIS OVERHEAD POWERLINE TERMINATION POINT; TEMPORARY FORTIS POWER CONNECTION POINT APPROXIMATE LOCATION.



1
E300
RESTROOM PLAN
POWER & SYSTEMS LAYOUT
1:25

KEYNOTES:

- 1 CABLE TRAY TO BE MOUNTED ABOVE UNIT HEATER. COORDINATE WITH MECHANICAL CONTRACTOR.

GENERAL NOTES:

- USE OF NONMETALLIC CABLES IS NOT ACCEPTABLE. TO PROTECT FROM DAMAGE CAUSED BY RODENTS, ARMORED CABLE ONLY OR CONDUCTOR ENCLOSED IN METALLIC CONDUIT IN RACEWAY, THROUGHOUT FACILITY, FOR UNDERGROUND DISTRIBUTION PVC RACEWAY ACCEPTABLE.
- SURFACE MOUNT PVC CONDUIT NOT ACCEPTABLE.
- INSTALLATION OF THE TRANSFORMER BASE, GROUNDING AND DUCTING, AND TEMPORARY POWER CONNECTION TO BUILDING THAT IS IN CONTRACT, MUST BE COMPLETED IN COORDINATION WITH FORTIS ALBERTA.
- ALL TRANSFORMERS ARE FORTIS ALBERTA METERED. CONTRACTOR TO COORDINATE TERMINATIONS WITH FORTIS ALBERTA.
- CABLING SHOWN INDICATES GENERAL LOCATION ONLY. TRENCHING IS TO BE PARALLEL TO BUILDING WALL AND/OR CROSSING AT 90 DEGREES TO THE BUILDING WALLS WHERE REQUIRED. A SEPARATE TRENCH WILL BE UTILIZED FOR PRIMARY AND SECONDARY CABLING. CONTRACTOR IS TO ENSURE ALL MINIMUM SEPARATION REQUIREMENTS ARE ACHIEVED AS PER CEC AND FORTIS ALBERTA GUIDELINES.
- CONTRACTOR IS TO COORDINATE WITH DEPARTMENTAL REPRESENTATIVE THE LAYOUT OF MECHANICAL ROOM COMPONENTS WITH AFFECT CONDUIT UNDER SLAB PRIOR TO INSTALLATION UNDER SLAB CONDUITS.
- CONTRACTOR TO SUBMIT A SHOP DRAWING FOR REVIEW WHICH INCLUDES A SCALED VIEW OF EACH MECHANICAL WALL, WITH INCLUDES ALL ELECTRICAL AND MECHANICAL COMPONENTS TO ENSURE ALL COMPONENTS FIT PROPERLY PRIOR TO BEGINNING OF WORK ON CONDUIT INSTALLATIONS!
- ALL UNDER SLAB CONDUITS ARE TO RISE THROUGH FLOOR DIRECTLY BELOW ELECTRICAL DEVICE IT IS TERMINATING INTO. CONDUITS RISING THROUGH THE FLOOR SLAB ARE NOT TO MAKE HORIZONTAL RUNS INSIDE THE MECHANICAL ROOM WITHOUT PRIOR APPROVAL FROM THE DEPARTMENTAL REPRESENTATIVE.
- CABLE TRAY TO BE 24" WIDE AND INSTALLED MINIMUM 8" ABOVE THE FLOOR UNLESS OTHERWISE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR IS TO COORDINATE UNDERGROUND CONDUIT INSTALLATIONS BENEATH THE MECHANICAL ROOM WITH THE INSTALLATION OF CONDUITS TO SEPTIC TANK AS SHOWN ON DRAWING E1.3.
- PLC CABINET AND UPS UNIT ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. SUPPLY AND INSTALLATION OF PLC CABINET AND UPS UNIT ARE OUTSIDE THE SCOPE OF THIS CONTRACT. CONTRACTOR IS TO ALLOW FOR SPACE/CONNECTIONS ONLY.
- CONTRACTOR IS REQUIRED TO INSTALL 25mm STEEL CONDUIT FROM FUTURE PLC CABINET THROUGH ATTIC SPACE TO WEATHER RATED JUNCTION BOX ON GABLE END OF BUILDING TO ALLOW FOR FUTURE ANTENNA INSTALLATION AS SHOWN ON A100. CONTRACTOR IS TO COORDINATE WITH DEPARTMENTAL REPRESENTATIVE THE LOCATION OF THE JUNCTION BOX AND FUTURE ANTENNA PRIOR TO INSTALLATION.

LEGEND

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WSP CANADA INC.
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No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

A
C

A detail number
numero de detail
B source drawing no.
de dessin no.
C detail on drawing no.
detail sur dessin no.

A
B
C

Consultant's Name
Nom de l'expert-conseil

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Canada

Client/client



Parks Canada
Agency

L'Agence Parcs
Canada

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Ouest et Nord
du Canada

Project title/Titre du projet

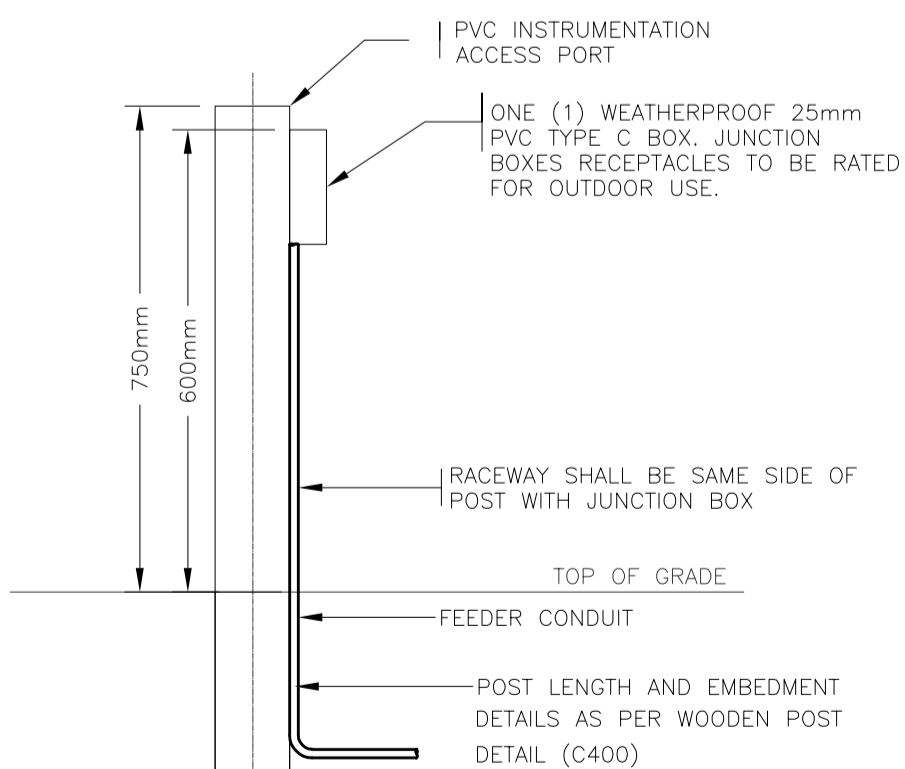
CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

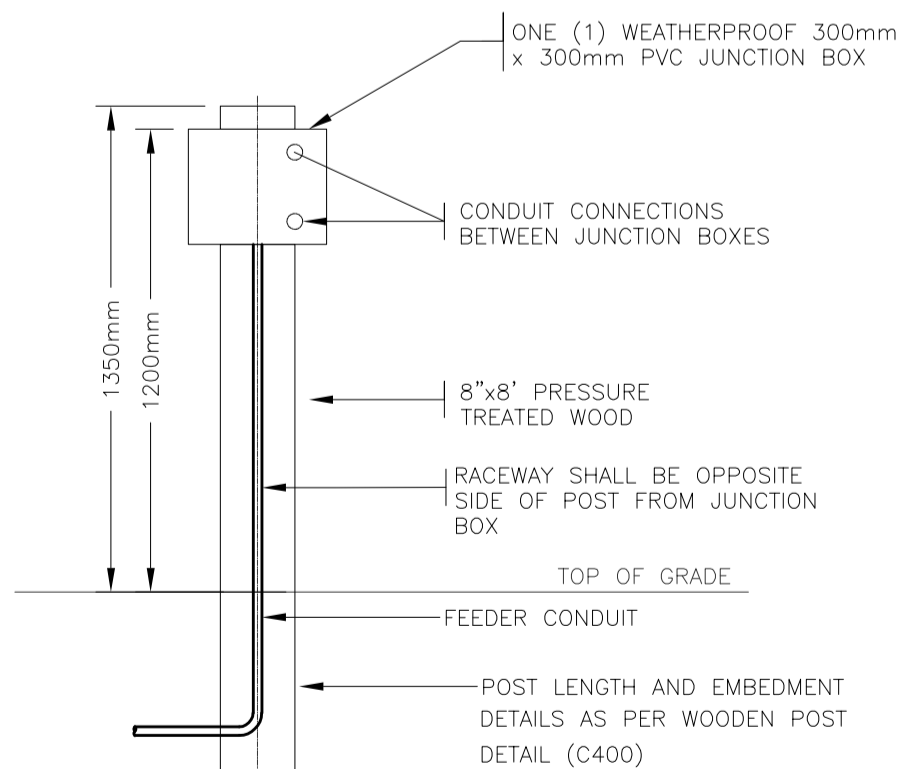
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ELECTRICAL DETAILS

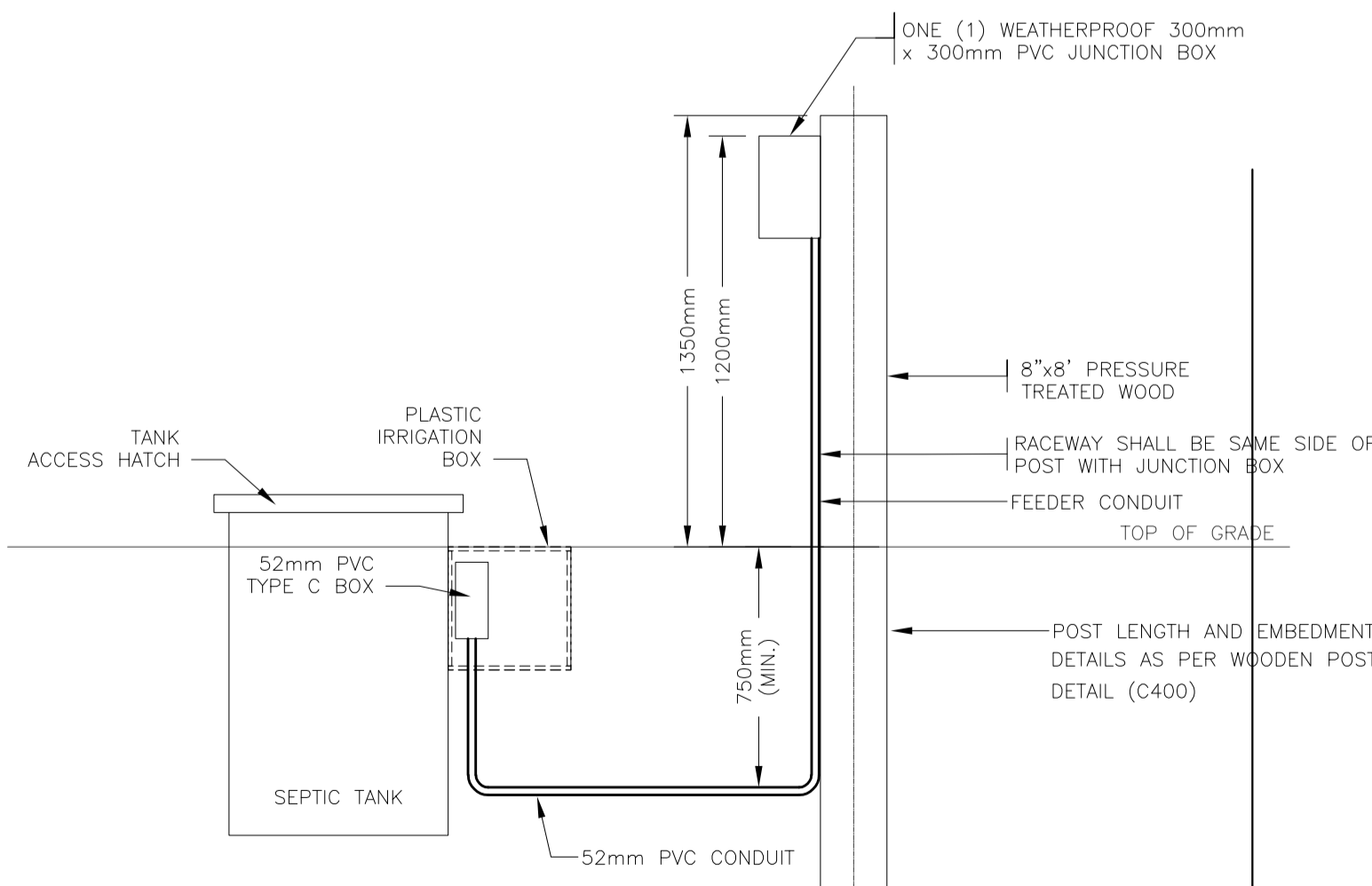
Surveyed by/Arpenté par PARKS CANADA	Drawn by/Dessiné par CM	Date/Date 04FEB2020
Designed by/Concept par CM/KR	Reviewed by/Revisé par KR	Scale/Echelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TP5GC MATTHEW WHALEN		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TP5GC
Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille 30
Drawing Reference No./No. de référence du dessin E1.2		33



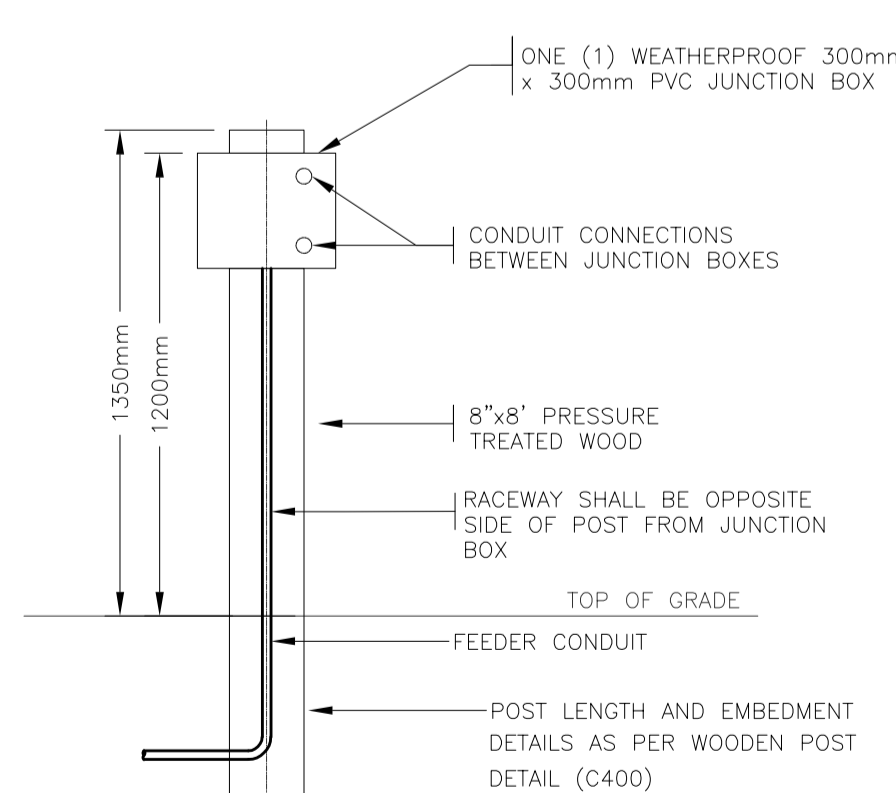
3
E300
CONDUIT CONNECTION TO
SEPTIC TANK INSTRUMENTATION PORT
NTS



3
E300
SEPTIC TANK
ELECTRICAL/INSTRUMENTATION JUNCTION BOX POST
NTS



4
E300
SEPTIC TANK ELECTRICAL JUNCTION BOX
TO PUMP ACCESS CONDUIT CONNECTION
NTS

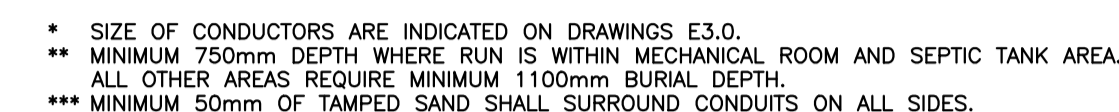


4
E300
FUTURE CAR CHARGERS
ELECTRICAL JUNCTION BOX POST
NTS

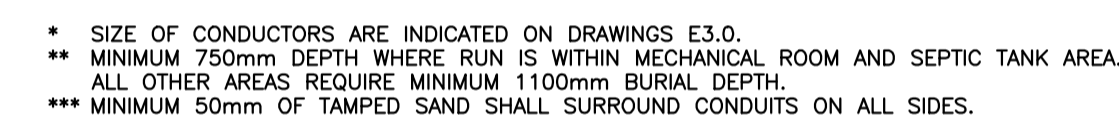


1. CONTRACTOR IS REQUIRED TO INSTALL OUTDOOR RECEPTACLE IDENTIFIED IN KEYNOTE 6, INCLUDING ASSOCIATED CONDUCTOR TO PANEL 1A AS PART OF SCOPE.
2. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL CONDUIT AND JUNCTION BOXES WITHIN THE SEPTIC TANK AREA AS SHOWN IN DETAIL #1, INCLUDING CONNECTIONS TO SEPTIC TANK AS SHOWN ON E1.2.
3. CONTRACTOR SHALL COMPLETE A WALK THROUGH WITH THE DEPARTMENT REPRESENTATIVE TO DISCUSS SEPTIC TANK AREA ELECTRICAL LAYOUT AND CONNECTIONS WITH SEPTIC TANK PRIOR TO BEGINNING ELECTRICAL WORK IN THE SEPTIC TANK AREA.
4. ALL EMPTY CONDUIT TO BE INSTALLED WITH PULL ROPE INSIDE.
5. JUNCTION BOXES IMMEDIATELY OFF THE SEPTIC TANK CONDUIT CONNECTIONS ARE TO BE VENTED.
6. CONDUIT INTO JUNCTION BOXES FROM SEPTIC TANK, MUST INCLUDE MECHANICAL SEAL TO PREVENT SEPTIC GASES FROM ENTERING JUNCTION BOXES.

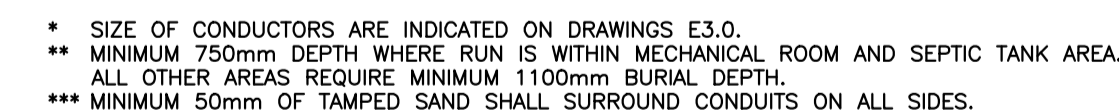
- 1 TYPE C - HIGH HIGH LEVEL FLOAT; TIED INTO THE SIDE OF ACCESS PORT. ACCESS PORT MUST EXTEND ABOVE GRADE AT LEAST 300mm ABOVE FINISHED GROUND.
- 2 TYPE C - LOW LOW LEVEL FLOAT; TIED INTO THE SIDE OF ACCESS PORT. ACCESS PORT MUST EXTEND ABOVE GRADE AT LEAST 300mm ABOVE FINISHED GROUND.
- 3 TYPE C - LEVEL TRANSMITTER; TIED INTO THE SIDE OF ACCESS PORT. ACCESS PORT MUST EXTEND ABOVE GRADE AT LEAST 300mm ABOVE FINISHED GROUND.
- 4 TYPE C - HIGH HIGH LEVEL FLOAT; TIED INTO THE SIDE OF ACCESS PORT. ACCESS PORT MUST EXTEND ABOVE GRADE AT LEAST 300mm ABOVE FINISHED GROUND.
- 5 TYPE C IN IRRIGATION BOX; DOSING PUMP POWER; TIED INTO THE SIDE OF ACCESS PORT. ACCESS PORT MUST EXTEND ABOVE GRADE AT LEAST 300mm ABOVE FINISHED GROUND.
- 6 OUTDOOR RECEPTACLES, MOUNTED ON WOODEN POST.
- 7 SEPTIC TANK ACCESS HATCH.
- 8 SEPTIC TANK VENT PIPE.



1 UNDERGROUND SECONDARY
E302 FEEDER TRENCH DETAIL
NTS



2 UNDERGROUND FEEDER TRENCH DETAIL
E302 NTS



3 UNDERGROUND FEEDER TRENCH DETAIL
E302 NTS

TOP VIEW

The top view shows a square frame assembly with the following dimensions:

- Total width: 1016
- Distance from left edge to first vertical divider: 190
- Distance between vertical dividers: 635
- Distance from last vertical divider to right edge: 190
- Total height: 1270
- Distance from top edge to first horizontal divider: 488
- Distance between horizontal dividers: 790
- Distance from last horizontal divider to bottom edge: 488
- Inner frame offset (from inner edge to outer frame): 115
- Outer frame thickness: 203

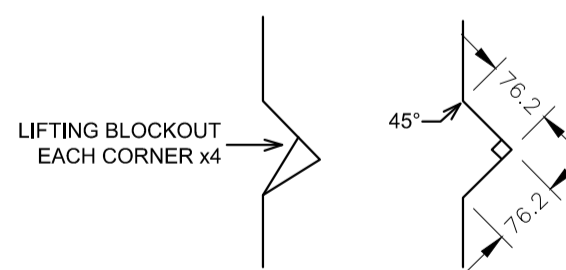
Four holes are located at the corners of the inner frame, each with a diameter of 15.9 DIA. (5/8"). The text "INSERTS x 4 HOLES" is also present.



1. CONCRETE TO BE SULPHATE RESISTANT CONFORMING TO CSA A23.4 "PRECAST CONCRETE," 6% ±1% AIR ENTRAINMENT
2. MAXIMUM SUPERIMPOSED LOAD 1000KG.
3. CABLE ACCESS OPENING ARE TO BE INCLUDED ON ALL FOUR SIDES.
4. PLASTIC COVERS FOR COVERING THE HOLES OF MOUNTING INSERTS ARE REQUIRED.
5. UNLESS OTHERWISE INDICATED, ALL DIMENSIONS ARE IN MILLIMETERS (INCHES).



SIDE VIEW



LIFTING BLOCK DETAIL



4 PRE-CAST CONCRETE PAD DETAIL
FOR FORTIS TRANSFORMER




NOTE:

1. IF THERE IS A SECONDARY PEDESTAL ATTACHED TO THE EQUIPMENT/TRANSFORMER PAD, THE GUARD POST AND GROUND GRID SHOULD BE EXTENDED IN SUCH A WAY TO PROTECT THE PERIPHERAL EQUIPMENT ALSO.

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Revision / Revision	
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<p>Consultant's Name Nom de l'expert-conseil</p>	<p>Eng. Stamp Sceau de l'ingénieur</p>
<p>wsp</p>	
<p>WSP Canada Inc 729 10 Street, Suite 203 Cammore, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com</p>	<p>63127 2022-08-02</p>

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Canada

Client/client  Parks Canada Agency	L'Agence Parcs Canada
Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet	
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CASTLE MOUNTAIN
CAMPGROUND (PHASE 2)

BANFF NATIONAL PARK, ALBERTA

Drawing title/Titre du dessin

ELECTRICAL DETAILS

Surveyed by / Arpenté par PARKS CANADA	Drawn by / Dessiné par CM	Date/Date 04FEB2020
Designed by / Concept par CM/KR	Reviewed by / Révisé par KR	Scale/Echelle AS SHOWN
PWGSC Project Manager/Administrateur de Projets TPWSC		
MATTHEW WHALEN		
Client Accepted/Acceptation du client	Approved by / Approuvé par	
 _____ Park Responsible Officer/Agent Responsable	 _____ PWGSC Project Manager/Administrateur de Projets TPS	
Project No./No. du projet 19M-01812-00	Asset No./No. du bien -	Sheet No./ No. de la feuille
Drawing Reference No./No. de référence du dessin E302	32 33	

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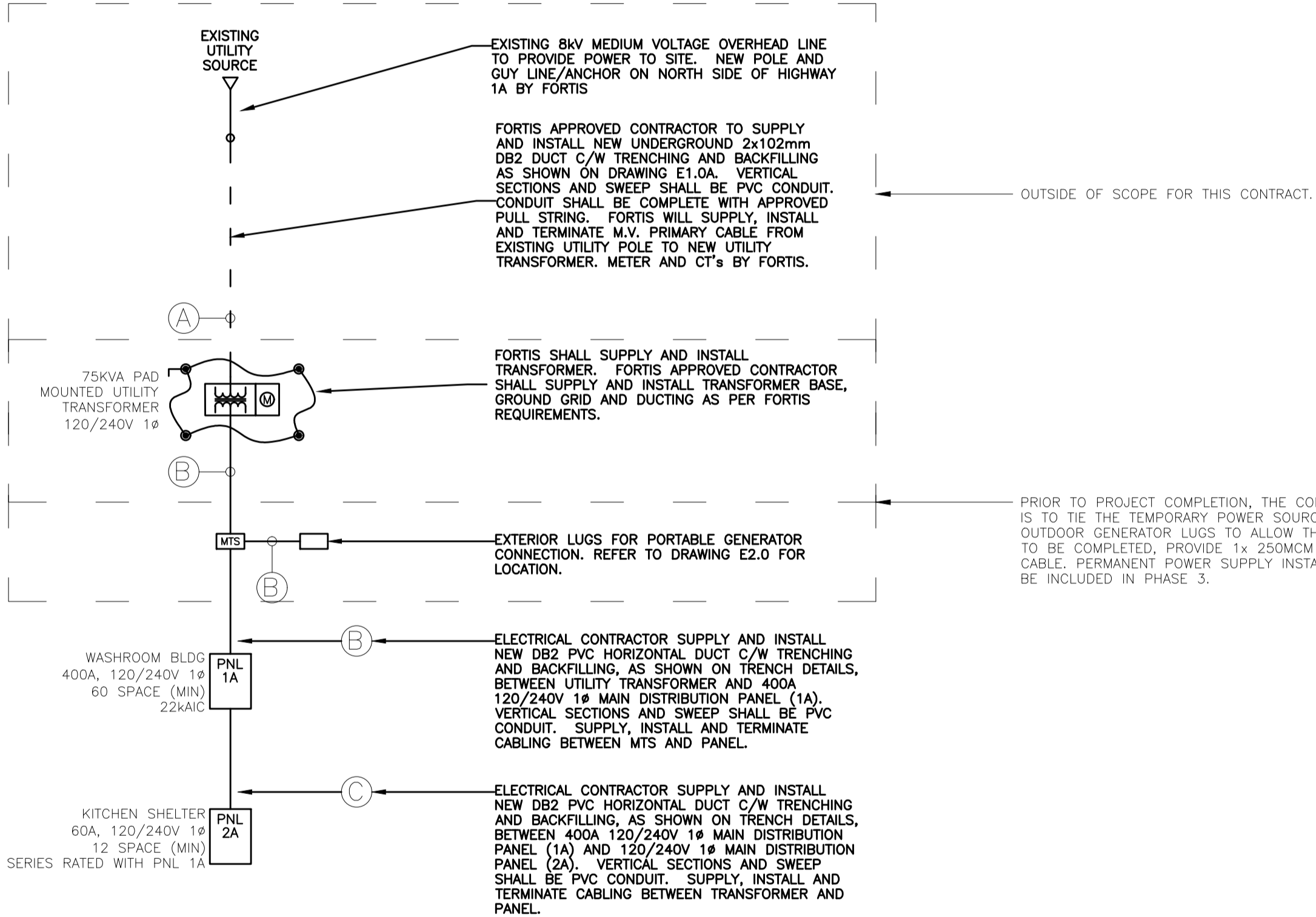
		PANEL NUMBER:				PANEL 1A				
Mounting :		Surface	VOLTAGE		240 V		BUS RATING:		400 A	
Panel Loc:		ELEC. RM	PHASES		1		MAIN BREAKER:		400 A	
			WIRE		3		INTERRUPTING CAPACITY:		22 KAIC	
Print Date:		Aug 2, 2022		PRINT FINAL						
		09:57 PM		PANEL						
				60 MIN						
CCT	LOAD			KVA	BKR	P	BKR	KVA	LOAD	CCT
No	TYPE	Description		SIZE	H	SIZE	TYPE	Description		No
1	OTH.	TVSS		0.02	15	A	15	0.50	REC. OUTDOOR REC (GFI)	2
3	LTG.	INTERIOR LTG		0.50	15	B	20	0.50	REC. EXTERIOR WP RECEPT.	4
5	LTG.	INTERIOR LTG		0.50	15	A	20	0.50	REC. EXTERIOR WP RECEPT.	6
7	LTG.	EXTERIOR LTG		0.50	15	B	15	0.40	REC. JANITOR RECEPT.	8
9	HTR.	UH-1		2.50	30	A	15	1.00	REC. UNIVERSAL RECEPT. GFI	10
11	HTR.			2.50	1/2P	B	15	1.00	REC. UNIVERSAL RECEPT. GFI	12
13	HTR.	UH-2		2.50	30	A	15	1.00	REC. PWR CHANGE TABLE	14
15	HTR.			2.50	1/2P	B	20	1.00	HTR. HAND DRYER	16
17	HTR.	CUH-1		2.00	30	A	20	1.00	HTR. HAND DRYER	18
19	HTR.			2.00	1/2P	B	20	1.00	HTR. HAND DRYER	20
21	HTR.	CUH-2		2.00	30	A	20	1.00	HTR. HAND DRYER	22
23	HTR.			2.00	1/2P	B	20	1.00	REC. MECH ROOM RECEPT.	24
25	HTR.	CUH-3		2.00	30	A	20	1.00	REC. MECH ROOM RECEPT.	26
27	HTR.			2.00	1/2P	B	15	1.00	MTR. EF-1	28
29	HTR.	DHW-1			30	A	15	1.00	MTR. HRV-1	30
31	HTR.				1/2P	B	15	1.00	REC. CHLORINE PUMP	32
33	HTR.	EDH-1			40	A	15	1.00	REC. CHLORINE ANALYZER	34
35	HTR.				1/2P	B	15	1.00	REC. UV REACTOR	36
37	HTR.	EDH-2			40	A	15	1.00	REC. FUTURE UPS RECEPT.	38
39	HTR.				1/2P	B				40
41	MTR.	ACCESSIBLE DOOR OPERATOR		1.00	15	A	15	0.50	OTH. REGISTRY KIOSK CCT.	42
43	OTH.	KITCHEN PANEL 2A		2.00	60	B	1/2P			44
45	OTH.			2.00	1/2P	A	40	0.50	SUB. KITCHEN SHELTER CIRCUIT	46
47						B	1/2P	0.50		48
49						A			OTH. FUTURE VEHICLE CHARGING	50
51	MTR.	WWT SYSTEM - SEPTIC PUMP		1.00	20	B			OTH.	52
53	MTR.			1.00	1/2P	A			OTH. FUTURE VEHICLE CHARGING	54
55	OTH.	U.V. SYSTEM		0.50	15	B			OTH.	56
57	OTH.	2000 VA UPS - H20 treatment		1.50	20	A			OTH. FUTURE VEHICLE CHARGING	58
59						B			OTH.	60
CONNECTED LOAD										
Phase A:		27.0 kVA		LOAD TYPE		DIVERSITY FACTOR		DEMAND		
Phase B:		23.9 kVA		LIGHTING		LTG. kVA 1.0		kVA		
TOTAL :		50.9 kVA		RECEPT.		REC. kVA 0.5		kVA		
Summer Load:		50.9 kVA		MOTORS		MTR. kVA 0.7		kVA		
Winter Load:		50.9 kVA		HEATERS		HTR. kVA 1.0		kVA		
MAXIMUM:		50.9 kVA		TOTAL		OTH. kVA		TOTAL DEMAND:		
								Summer		kVA
								Winter		kVA
								TOTAL DEMAND:		kVA

MECHANICAL EQUIPMENT SCHEDULE												
NO.	NAME	LOCATION	HP	KW	FLA	PHASE	VOLTAGE	CIRCUIT	BREAKER	FEEDER	STARTER	NOTES
EF-1	EXHAUST FAN	MECH ROOM	1/10		2	1	120	1A-33	15A-1P	3/4"C-2#12+GND		
RF-1	RADON	MECH ROOM		0.02	1	1	120	1A-35	15A-1P	3/4"C-2#12+GND		
UH-1	UNIT HEATER	MECH ROOM	FRAC.			1	240	1A-9,11	30A-2P	3/4"C-2#10+GND		
UH-2	UNIT HEATER	UNIVERSAL	FRAC.			1	240	1A-17,19	30A-2P	3/4"C-2#10+GND		
CUH-1	CABINET UNIT HEATER	UNIVERSAL				1	240	1A-13,15	30A-2P	3/4"C-2#10+GND		
CUH-2	CABINET UNIT HEATER	UNIVERSAL				1	240		30A-2P	3/4"C-2#10+GND		
CUH-3	CABINET UNIT HEATER	UNIVERSAL				1	240		30A-2P	3/4"C-2#10+GND		
EDH-1	DUCT HEATER					1	240	1A-25,27	40A-2P	1"C-2#8+GND		
EDH-2	DUCT HEATER					1	240	1A-29,31	40A-2P	1"C-2#8+GND		
DHW-1	DOM. WATER HEATER	MECH ROOM		5		1	240	1A-21,23	30A-2P	3/4"C-2#10+GND		
HRV-1	HEAT RECOVERY UNIT	MECH ROOM				1	240	1A-37	15A-1P	3/4"C-2#12+GND		

DEMOLITION
SINGLE LINE DIAGRAM

NOTE:
NOT INCLUDED IN PHASE 2 CONTRACT; PHASE 3 SCOPE.

RENOVATION
SINGLE LINE DIAGRAM



CABLE SCHEDULE:

- (A) 2x103C CONDUIT COMPLETE WITH PULL CORDS
- (B) 2x103C, 2x3#3/0 AWG + GND
- (C) 1x53C, 3#6 AWG + GND

GENERAL NOTES:

- REFER TO SPECIFICATIONS.
- REFER TO PHASING REQUIREMENTS OF WORK DESCRIBED ON LAYOUT DRAWINGS AND SPECIFICATIONS.
- ALL LAMACOIDS TO BE RIVETTED.
- ALL DISCONNECTS SHALL BE WEATHERPROOF AND CAPABLE OF ACCEPTING CABLE SIZES SPECIFIED ON CABLE SCHEDULE. DISCONNECTS SHALL BE INSTALLED AT EACH BUILDING FOR FEEDER TIE-IN.
- ALL CONDUCTOR SHALL BE COPPER UNLESS OTHERWISE NOTED.
- ALL BUILDING INTERIOR CABLES TO BE ARMORED OR INSTALLED IN STEEL CONDUIT TO PROVIDE RODENT PROOFING.
- THE CONTRACTOR IS TO ONLY INSTALL TEMPORARY POWER TO THE BUILDING FROM THE EXISTING OVERHEAD POWER INTO THE SITE AS PART OF THIS CONTRACT. UNDER PHASE 3 OF THE CONTRACT, PERMANENT NEW POWER WILL BE INSTALLED INTO THE MTS.
- ELECTRICAL PANEL TO BE EATON PRL1A.
- PANEL 2A TO BE INSTALLED BY PARKS CANADA. CONTRACTOR IS TO TERMINATE FEED CABLES INTO PARKS CANADA INSTALLED PANEL.

LEGEND

PERMIT TO PRACTICE
WSP CANADA INC.

RM SIGNATURE: _____

RA APEGA ID #: 63127

DATE: 2022-08-02

PERMIT NUMBER: P007641

The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

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CAMPGROUND (PHASE 2)

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